

JVC

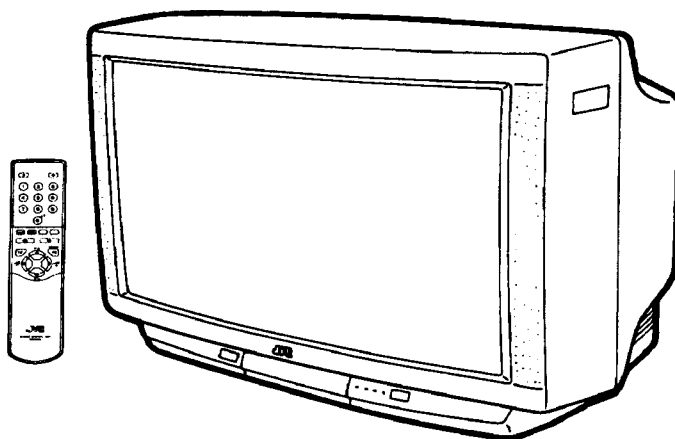
SERVICE MANUAL

COLOUR TELEVISION

AV-28WR2EN AV-28WR2EK

BASIC CHASSIS

JF




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SPECIFICATIONS

Item	Content	
	AV-28WR2EN	AV-28WR2EK
Dimensions (W × H × D)	716mm × 489mm × 496mm	
Mass	34.6kg	
TV RF System Colour System Stereo System Teletext System	CCIR(B/G , I) PAL / SECAM / NTSC(Only in EXT mode) A2/NICAM5.5 Fastext(United Kingdom system) TOP(German system) WST(Standard system)	CCIR(I) PAL / NTSC(Only in EXT mode) NICAM6.0 Fastext(United Kingdom system) WST(Standard system)
Receiving Frequency VHF UHF	47MHz ~ 470MHz 470MHz ~ 862MHz	470MHz ~ 862MHz
Intermediate Frequency VIF Carrier SIF Carrier	38.9MHz(B/G) 33.4(5.5MHz)	39.5MHz(I) 33.5(6.0MHz)
Colour Sub Carrier Freq. PAL SECAM NTSC	4.43MHz 4.0625MHz / 4.25MHz 3.58MHz / 4.43MHz	4.43MHz 3.58MHz / 4.43MHz
Power Input Power Consumption	AC 220V~240V , 50Hz 196W(Max) / 106W(Avg) , 106W/h(ITALY)	
Picture Tube High Voltage	Visible size : 66cm, Measured diagonally 31.0Kv +1kV -1.5kV (at zero beam current)	
Speaker Audio Output	(ϕ 10 + ϕ 3.5) cm × 2, Dome speaker 15W + 15W	
EXT-1/EXT-2 (Input/Output) EXT3 (Input) Video Audio(L/R) Aerial Input Term Headphone jack	21-pin Euro connector(SCART socket) 1Vp-p 75 Ω (RCA pin jack) 500mVrms(-4dBs), High Impedance(RCA pin jack) 75 Ω unbalanced, Coaxial Stereo mini jack (ϕ 3.5mm)	
Remote Control Unit	RM-C793 AAA(R03) dry battery × 2	RM-C792 AAA(R03) dry battery × 2

Design & specification are subject to change without notice.

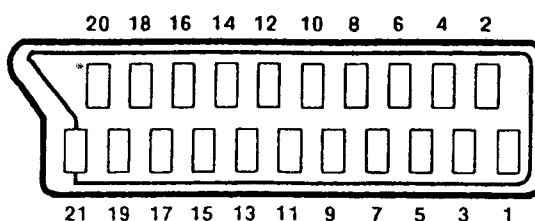
★ Manufactured under license from Dolby Laboratories Licensing Corporation.
“Dolby” and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

■21-pin Euro connector (SCART socket) : EXT-1 / EXT-2

(P-P= Peak to Peak, S-W= Sync tip to white peak, B-W= Blanking to white peak)

Pin No.	Signal Designation	Matching Value	EXT-1	EXT-2
1	AUDIO R output	500mVrms(Nominal), Low impedance	○ (TV OUT)	○ (TV/LINE OUT)
2	AUDIO R input	500mVrms(Nominal), High impedance	○	○
3	AUDIO L output	500mVrms(Nominal), Low impedance	○ (TV OUT)	○ (TV/LINE OUT)
4	AUDIO GND		○	○
5	GND (B)		○	○
6	AUDIO L input	500mVrms(Nominal), High impedance	○	○
7	B input	700mV _{B-W} , 75Ω	○	NC
8	FUNCTION SW (SLOW SW)	Low : 0-3V, High : 8-12V, High impedance	○	NC
9	GND (G)		○	○
10	--		NC	--
10	SCL3		--	○
11	G input	700mV _{B-W} , 75Ω	○	NC
12	--		NC	--
12	SDA3		--	○
13	GND (R)		○	○
14	GND (Y _S)		○	NC
15	R / C input	R : 700mV _{B-W} , 75Ω C : 300mV _{P-P} , 75Ω	○ (R/C)	○ (only C)
16	Ys input	Low : 0 - 0.4, High : 1 - 3V, 75Ω	○	NC
17	GND(VIDEO output)		○	○
18	GND(VIDEO input)		○	○
19	VIDEO output	1V _{S-W} (Negative going sync), 75Ω	○ (TV)	○ (TV/LINE OUT)
20	VIDEO / Y input	1V _{S-W} (Negative going sync), 75Ω	○	○
21	COMMON GND		○	○

[Pin assignment]



SAFETY PRECAUTIONS [EN MODEL]

1. The design of this product contains special hardware, many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. **Electrical components having such features are identified by shading on the schematics and by (Δ) on the parts list in Service manual.** The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may cause shock, fire, or other hazards.
4. **Don't short between the LIVE side ground and ISOLATED (NEUTRAL) side ground or EARTH side ground when repairing.**
Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND, the ISOLATED(NEUTRAL) : (⌋) side GND and EARTH : (⊕) side GND. Don't short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND and never measure with a measuring apparatus (oscilloscope etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND at the same time.
If above note will not be kept, a fuse or any parts will be broken.
5. If any repair has been made to the chassis, it is recommended that the B1 setting should be checked or adjusted (See ADJUSTMENT OF B1 POWER SUPPLY).
6. The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage can cause an increase in X-Ray emission, arcing and possible component damage, therefore operation under excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.). To maintain the proper minimum level of soft X-Ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.
7. Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a 10kΩ 2W resistor to the anode button.
8. When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.

9. Isolation Check

(Safety for Electrical Shock Hazard)

After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screwheads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

(1) Dielectric Strength Test

The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 3000V AC (r.m.s.) for a period of one second.

(... Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.)

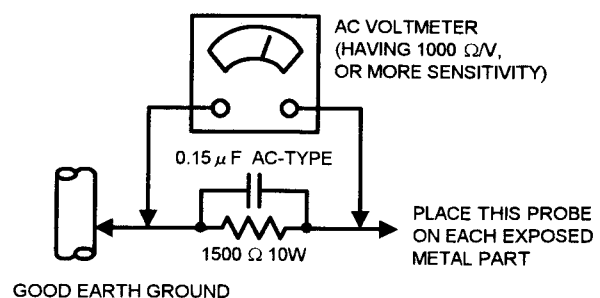
This method of test requires a test equipment not generally found in the service trade.

(2) Leakage Current Check

Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.).

● Alternate Check Method

Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1000 ohms per volt or more sensitivity in the following manner. Connect a 1500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.35V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.).



SAFETY PRECAUTIONS [EK MODEL]

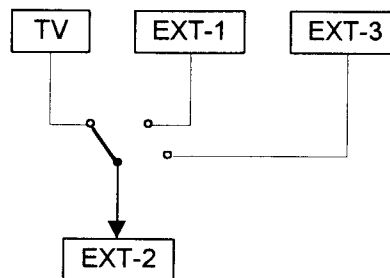
1. The design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the product have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (△) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the Parts List of Service Manual may cause shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubing, barriers and the like to be separated from live parts, high temperature parts, moving parts and / or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.

WARNING





1. The equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

FEATURES

- By preference, users can select the picture size from PANORAMIC, REGULAR, FULL, 14:9 ZOOM, 16:9 ZOOM, 16:9 ZOOM SUB TITLE modes. When the TV unit received WSS picture signal, the picture can be changed to 16:9 ZOOM mode automatically.
- The TELETEXT SYSTEM has a built-in FASTEXT, TOP and WST system (TOP system only EN model).
- Thanks to the newly employed DSP control micro computer, users can select 3D-PHONIC, and enjoy Surround effect at each mode.
- Because this TV unit corresponds to multiplex broadcast, users can enjoy music programs and sporting events with live realism. In addition, BILINGUAL programs can be heard in their original language.
- In accordance with the brightness in a room, the brightness and/or contrast of the picture can be adjusted automatically to make the optimum picture which is easy on the eye.
- Users can make VTR dubbing of picture and sound by controlling the AV selector to select an optional source at the EXT-2 output shown in figure.



MAIN DIFFERENCE LIST BETWEEN AV-28WR2EN AND AV-28WR2EK

	Model Name Part Name	AV-28WR2EN	AV-28WR2EK
	MAIN PWB	SJF-1002A-U2	SJF-1902A-U2
	IF PWB	SJF0F001A-U2	SJF0F901A-U2
	POWER CORD	AEEMP001-185	AEEMP003-185A
	RATING LABEL	CM23157-006-E CM23049-006-E	CM23047-004-E
	REMOTE CONTROL UNIT	RM-C793-1E	RM-C792-1E
	S. DIAGRAM [Only ITALY]	28WR2EN-HSAE	—
	INST BOOK	CQ40369-001-E CQ40370-001-E	CQ40367-001-E
	SET UP GUIDE	—	CQ40368-001-E
	DEC. SHEET	CM22966-009-E	—
	EURO LABEL	AEM1038-064-E	AEM1038-065-E

SPECIFIC SERVICE INSTRUCTIONS

REPLACEMENT OF CHIP COMPONENT

■ CAUTIONS

1. Avoid heating for more than 3 seconds.
2. Do not rub the electrodes and the resist parts of the pattern.
3. When removing a chip part, melt the solder adequately.
4. Do not reuse a chip part after removing it.

■ SOLDERING IRON

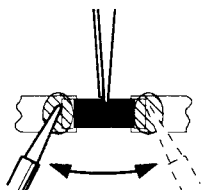
1. Use a high insulation soldering iron with a thin pointed end of it.
2. A 30w soldering iron is recommended for easily removing parts.

■ REPLACEMENT STEPS

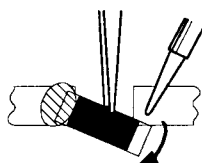
1. How to remove Chip parts

◆ Resistors, capacitors, etc

- (1) As shown in the figure, push the part with tweezers and alternately melt the solder at each end.



- (2) Shift with tweezers and remove the chip part.

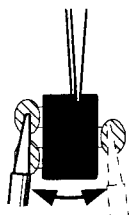


◆ Transistors, diodes, variable resistors, etc

- (1) Apply extra solder to each lead.



- (2) As shown in the figure, push the part with tweezers and alternately melt the solder at each lead. Shift and remove the chip part.

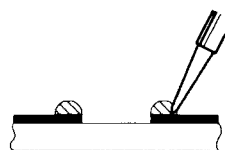


Note : After removing the part, remove remaining solder from the pattern.

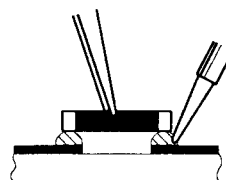
2. How to install Chip parts

◆ Resistors, capacitors, etc

- (1) Apply solder to the pattern as indicated in the figure.

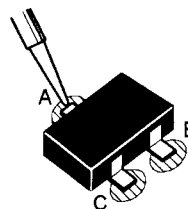


- (2) Grasp the chip part with tweezers and place it on the solder. Then heat and melt the solder at both ends of the chip part.

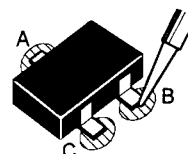


◆ Transistors, diodes, variable resistors, etc

- (1) Apply solder to the pattern as indicated in the figure.
- (2) Grasp the chip part with tweezers and place it on the solder.
- (3) First solder lead A as indicated in the figure.



- (4) Then solder leads B and C.



DISASSEMBLY PROCEDURE

REMOVING THE REAR COVER

1. Unplug the power cord.
2. Remove the 13 screws marked "A" as shown in the Fig. 1.
3. Withdraw the rear cover toward you.

REMOVING THE CHASSIS

- After removing the rear cover.
1. Slightly raise the both sides of the chassis by hand and remove the two claws under the both sides of the chassis from the front cabinet.
 2. Withdraw the chassis backward.
(If necessary, take off the wire clamp, connectors etc.)

REMOVING THE AV TERMINAL BOARD

- After removing the rear cover.
1. Remove the 5 screws marked "B" as shown in the Fig. 1.
 2. While raising the claw marked "C", remove the top of the AV TERMINAL BOARD slightly in the direction of arrow "D" as shown in Fig. 2.

REMOVING THE SPEAKER BOX

- After removing the rear cover.
1. Remove the 2 screws marked "E" as shown in Fig. 1.
 2. Follow the same steps when removing the other hand speaker box.

NOTE : When removing the screws marked "E" of the speaker box, remove the lower side screw first, and then remove the upper screw.

CHECKING THE PW BOARD

To check the back side of the PW Board.

- 1) Pull out the chassis. (Refer to REMOVING THE CHASSIS).
- 2) Erect the chassis vertically so that you can easily check the back side of the PW Board.

[CAUTION]

- When erecting the chassis, be careful so that there will be no contacting with other PW Board.
- Before turning on power, make sure that the wire connector is properly connected.
- When conducting a check with power supplied, be sure to confirm that the CRT EARTH WIRE (BRAIDED ASS'Y) is connected to the CRT SOCKET PW board.

WIRE CLAMPING AND CABLE TYING

1. Be sure to clamp the wire.
2. Never remove the cable tie used for tying the wires together.
Should it be inadvertently removed, be sure to tie the wires with a new cable tie.

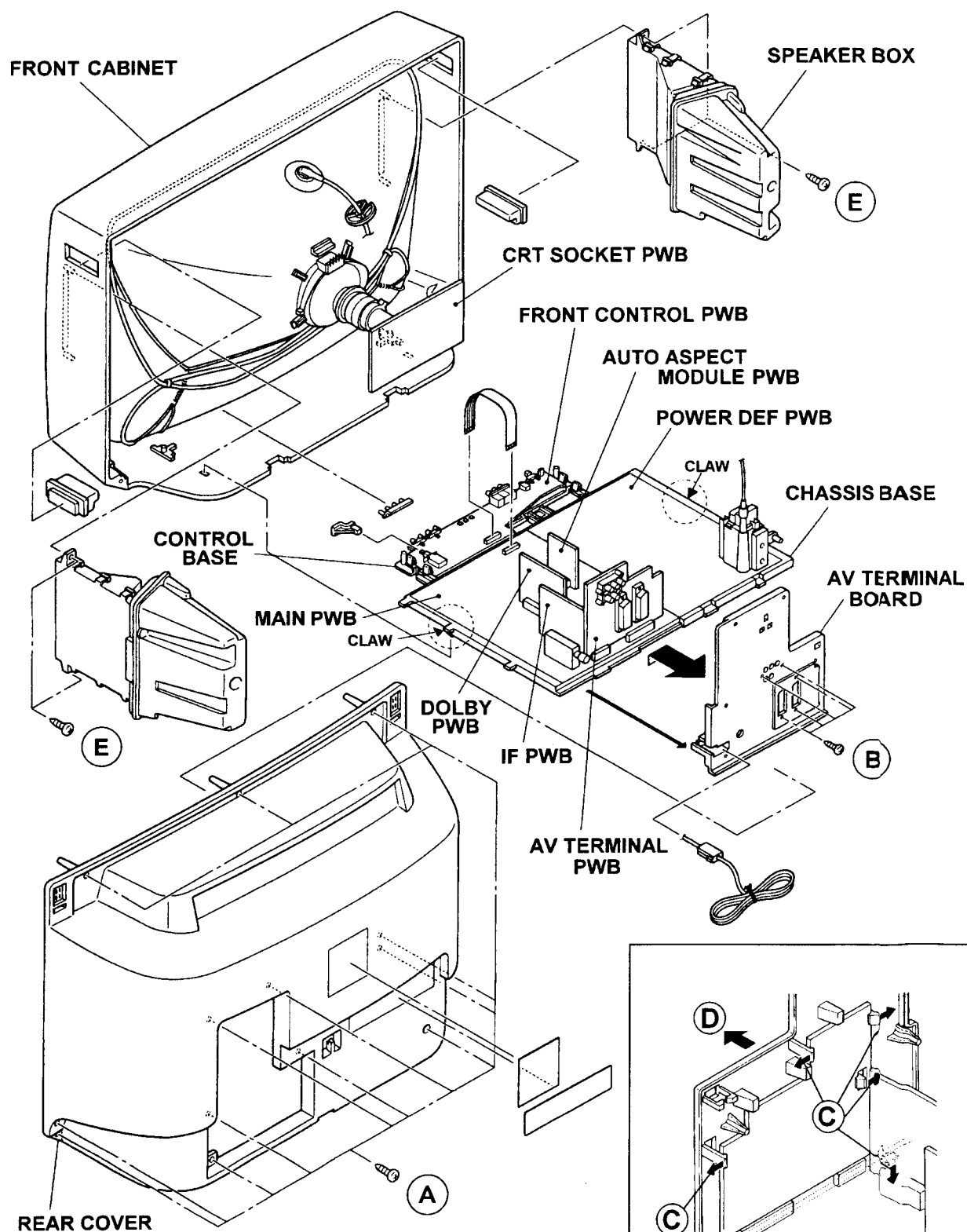


Fig. 1

Fig. 2

REMOVING THE CRT

*Replacement of the CRT should be performed by 2 or more persons.

- After removing the cover, chassis etc.,
- 1. Putting the CRT change table on soft cloth, the CRT change table should also be covered with such soft cloth (shown in Fig.3).
- 2. While keeping the surface of CRT down, mount the TV set on the CRT change table balanced will as shown in Fig.4.
- 3. Remove 4 screws marked by arrows with a box type screw driver as shown in Fig.4.
- Since the cabinet will drop when screws have been removed, be sure to support the cabinet with hands.
- 4. After 4 screws have been removed, put the cabinet slowly on cloth (At this time, be carefully so as not to damage the front surface of the cabinet) shown in Fig.5.
- The CRT should be assembled according to the opposite sequence of its dismantling steps.
- * The CRT change table should preferably be smaller than the CRT surface, and its height be about 35cm.

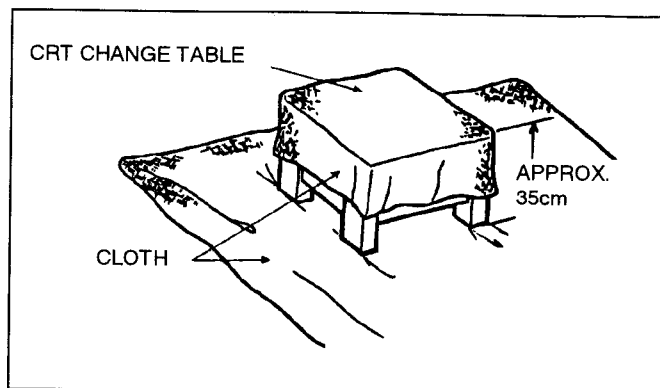


Fig. 3

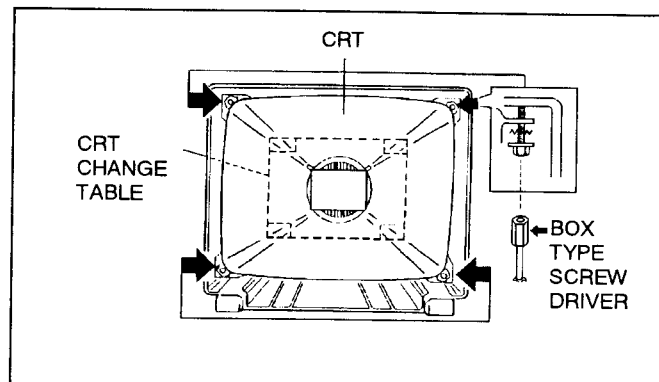


Fig. 4

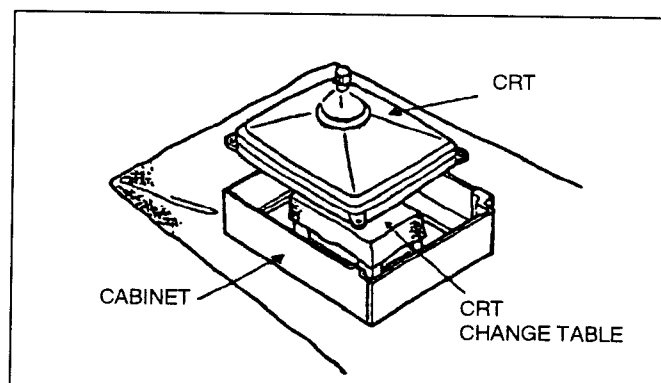


Fig. 5

COATING OF SILICON GREASE FOR ELECTRICAL INSULATION ON THE CRT ANODE CAP SECTION.

- Subsequent to replacement of the CRT and HV transformer or repair of the anode cap, etc. by dismantling them, be sure to coat silicon grease for electrical insulation as shown in Fig.6.

Wipe around the anode button with clean and dry cloth. (Fig.6)
Coat silicon grease on the section around the anode button. At this time, take care so that any silicon greases do not stick to the anode button. (Fig.7)

★ Silicon grease product No. KS - 650N

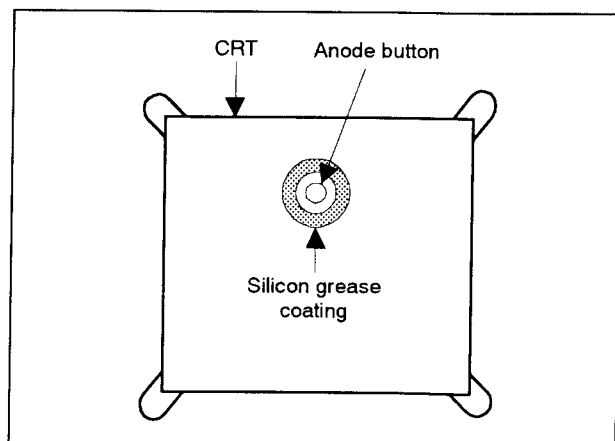


Fig. 6

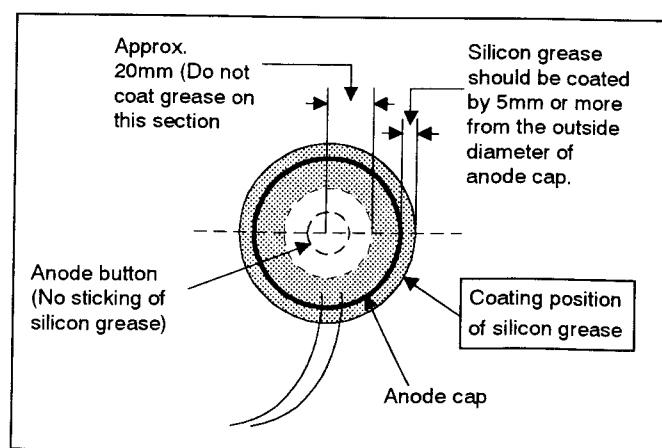


Fig. 7

REPLACEMENT OF MEMORY ICs

1. Memory ICs

This TV use memory ICs (EEP-ROM IC). In the memory ICs, there are memorized data for correctly operating the video and deflection circuits. When replacing memory ICs, be sure to use ICs written with the initial values of data.

2. Procedure for replacing memory ICs

PROCEDURE	
(1) Power off	Switch the power off and unplug the power code from the outlet.
(2) Replace ICs.	Be sure to use memory ICs written with the initial data values.
(3) Power on	Plug the power code into the outlet and switch the power on.
(4) Check and set SYSTEM CONSTANT SET:	<ol style="list-style-type: none"> 1) Press the INFORMATION key and the MUTE key of the REMOTE CONTROL UNIT simultaneously. 2) The SERVICE MENU screen of Fig. 1 will be displayed. 3) While the SERVICE MENU is displayed, press the INFORMATION key and MUTE key simultaneously, and the SYSTEM CONSTANT SET screen of Fig. 2 will be displayed. 4) Check the setting values of the SYSTEM CONSTANT SET of Table 1. If the value is different, select the setting item with the FUNCTION UP/DOWN key, and set the correct value with the FUNCTION +/- key. 5) Press the MENU key to memorize the setting value. 6) Press the INFORMATION key twice, and return to the normal screen.
(5) Setting of receive channels	Set the receive channel. For setting, refer to the OPERATING INSTRUCTIONS.
(6) User settings	Check the user setting values of Table 2, and if setting value is different, set the correct value. For setting, refer to the OPERATING INSTRUCTIONS.
(7) Setting of SERVICE MENU	Verify the setting items of the SERVICE MENU of Table 3, and reset where necessary. For setting, refer to the SERVICE ADJUSTMENTS.

SERVICE MENU


SERVICE MENU	
1. IF	2. V/C
3. AUDIO	4. DEF
5. VSM PRESET	6. VPS
7. AUTO PROGRAM (OFF)	
1-7 : SELECT  : EXIT	

Fig.1

SYSTEM CONSTANT SET








SYSTEM CONSTANT SET	
MODEL=28/32WR2 (V*, ****)	
COUNTRY	: EN
INCH	: 28
- +  : STORE	 : EXIT
JVC JF WIDE V01	
***** - *****	

Fig.2
[AV-28WR2EN]

NAME OF REMOTE CONTROL KEY

Names of key	key
INFORMATION	
MUTE	
MENU	
FUNCTION UP/DOWN	
FUNCTION +/-	

SETTING VALUES OF SYSTEM CONSTANT SET (TABLE 1)

Setting item	Setting content	Setting value	
		AV-28WR2EN	AV-28WR2EK
1. COUNTRY	▶ EN → EK	EN	EK
2. INCH	▶ 28 → 32 → 24	28	28

USER SETTING VALUES (TABLE 2)

Setting item	Setting value	Setting item	Setting value
SUB POWER	ON	COLOUR SYSTEM	AUTO
CHANNEL	1 POSITION	COOL/NORMAL/WARM	COOL
CHANNEL PRESET	See ; OPERATING INSTRUCTIONS	SLEEP TIMER	OFF
VOLUME	Appropriate sound volume	BLUE BACK	ON
TV / EXT	TV	ASPECT MODE	PANORAMIC
DISPLAY	CHANNEL DISPLAY	HYPER SOUND	OFF
ECO MODE	OFF	BALANCE,BASS,TREBLE	CENTER
ZOOM MODE	REGULAR	LANGUAGE	ENGLISH
		CHILD LOCK	ID No.*****

SERVICE MENU SETING ITEMS (TABLE 3)

Setting item	Setting value	Setting item	Setting value
1. IF	1. VCO 2. DELAY POINT	4. DEF.	1. TRAPEZ 2. V-SHIFT 3. V-SIZE 4. H-CENT 5. H-SIZE 6. EW-PIN 7. V-S. CR 8. V-LIN 9. V-EDGE 10. EW-COR 11. ABL POINT 12. ABL GAIN
2. V/C	1. CUT OFF 2. DRIVE 3. BRIGHT 4. CONT. 5. COLOUR(PAL/SECAM/NTSC) 6. TINT(NTSC) 7. BLACK OFFSET(SECAM) 8. SHARP 9. TEXT (RGB) CONT	5. VSM PRESET [COOL NORMAL WARM	1. BRIGHT 2. CONT. 3. COLOUR 4. SHARP 5. TINT 6. R DRIVE 7. B DRIVE 8. BASS 9. TREBLE
3. AUDIO (Do not adjust)	1. CONC LIMIT 2. A2 ID THR	6. VPS (Do not adjust)	VPS
		7. AUTO PROGRAM (Do not adjust)	ON / OFF

SERVICE ADJUSTMENTS

BEFORE STARTING SERVICE ADJUSTMENT

1. There are 2 ways of adjusting this TV: One is with the REMOTE CONTROL UNIT and the other is the conventional method using adjustment parts and components.
2. The setting (adjustment) using the REMOTE CONTROL UNIT is made on the basis of the initial setting values. The setting values which adjust the screen to the optimum condition can be different from the initial setting values.
3. Turn on the power of the TV and measuring instrument for warming up for at least 30 minutes before starting adjustment.
4. Make sure that connection is correctly made to AC power source.
5. If the receive or input signal is not specified, use the most appropriate signal for adjustment.
6. Never touch parts (such as variable resistors, transformers and condensers) not shown in the adjustment items of this service adjustment.
7. Preparation for adjustment (presetting):
Unless otherwise specified in the adjustment items, preset the following functions with the REMOTE CONTROL UNIT:

(1) PICTURE MODE (VSM)	COOL
(2) SLEEP TIMER	OFF
(3) DIGITAL SURROUND	OFF
(4) BALANCE	CENTER
(5) ECO	OFF
(6) ZOOM	REGULAR

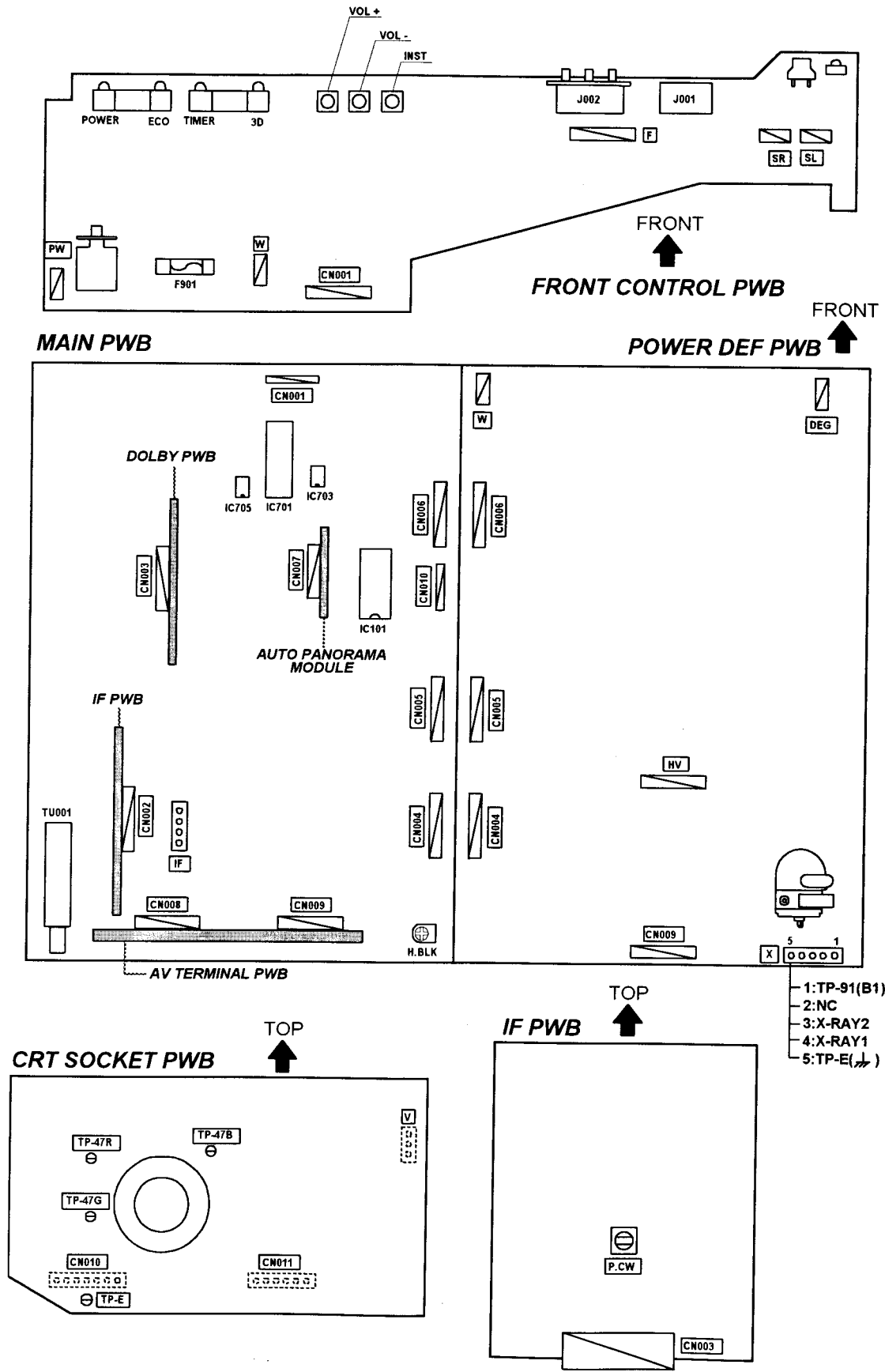
MEASUREING INSTRUMENT AND FIXTURES

1. DC voltmeter (or digital voltmeter)
2. Oscilloscope
3. Signal generator (Pattern generator) [PAL/SECAM/NTSC]
4. Remote control unit

ADJUSTMENT ITEMS

- Check of B1 voltage.
- Adjustment of FOCUS.
- IF circuit adjustment.
- VSM preset adjust setting.
- VIDEO / CHROMA circuit adjustment.
- DEFLECTION circuit adjustment.
- AUDIO circuit adjustment. (Do not adjust)

ADJUSTMENT LOCATIONS



BASIC OPERATION OF SERVICE MENU

1. TOOL OF SERVICE MENU OPERATION

Operate the SERVICE MENU with the REMOTE CONTROL UNIT.

2. SERVICE MENU ITEMS

With the SERVICE MENU, various settings (adjustments) can be made, and they are broadly classified in the following items of settings (adjustments):

- (1) **1. IF** This mode adjusts the setting values of the IF circuit.
- (2) **2.V/C** This mode adjusts the setting values of the VIDEO / CHROMA circuit.
- (3) **3.AUDIO** This mode adjusts the setting values of the multiplicity SOUND circuit.
- (4) **4.DEF** This mode adjusts the setting values of the DEFLECTION circuit for each aspect mode given below.

PANORAMIC	(50/60Hz)
REGULAR	(50/60Hz)
14:9 ZOOM	(50/60Hz)
16:9 ZOOM	(50/60Hz)
16:9 ZOOM SUB TITLE	(50/60Hz)
FULL	(50/60Hz)
- (5) **5.VSM PRSET** This mode adjusts the initial setting values of COOL,NOMAL and WARM.
(VSM : Video Status Memory)
- (6) **6.VPS** This mode shows the monitor of the VPS and PDC. *(Do not adjust)*.
(VPS : Video Program System, PDC : Program Delivery Code)
- (7) **7.AUTO PROGRAM** By turning the power switch on, you can get the state of AUTO PROGRAM. *(Do not adjust)*

3. BASIC OPERATION OF SERVICE MENU

(1) How to enter SERVICE MENU

Press the INFORMATION key and the MUTE key of the REMOTE CONTROL UNIT simultaneously, and the SERVICE MENU screen of Fig. 1 will be displayed.

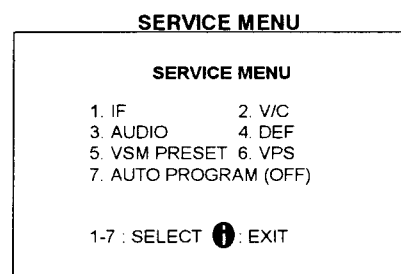


Fig.1

(2) Selection of SUB MENU SCREEN

Press one of keys 1~7 of the REMOTE CONTROL UNIT and select the SUB MENU SCREEN (See Fig. 3), from the SERVICE MENU.

SERVICE MENU → SUB MENU

1. IF
2. V / C
3. AUDIO
4. DEF.
5. VSM PRESET
6. VPS
7. AUTO PROGRAM

NEME OF REMOTE CONTOROL KEY

Names of key	key
INFORMATION	
MUTE	
MENU	
FUNCTION UP/DOWN	
FUNCTION -/+	

Fig.2

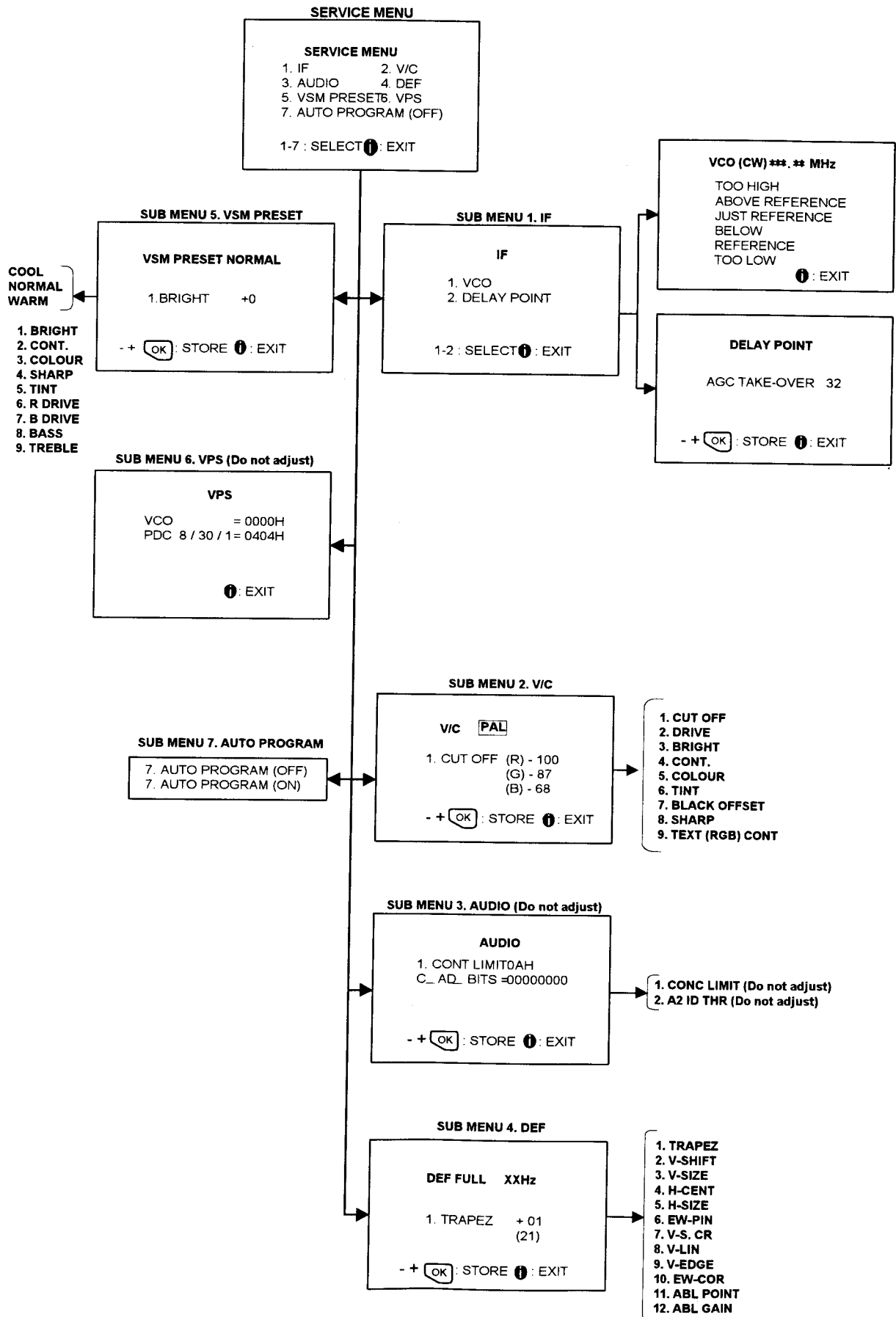


Fig. 3 SUB MENU SCREEN

(3) Method of Setting

1) Method of Setting 1.IF

[1. VCO]

- ① 1 Key Select 1.IF.
- ② 1 Key Select 1.VCO
- ③ The VCO (CW) screen will be displayed in yellow when the AFC voltage is at a certain level and in blue when it is at other levels.
- ④ INFORMATION Key As you press this twice, you will return to the **SERVICE MENU**.

[2. DELAY POINT]

- ① 1 Key Select 1.IF.
- ② 2 Key Select 2.DELAY POINT.
- ③ FUNCTION +/- Set (adjust) the setting values of the setting items.
- ④ MENU Key Memorize the set value.
(Before storing the setting values in memory, do not press the CH, TV, POWER ON / OFF keys - if you do, the values will not be stored in memory.)
- ⑤ INFORMATION Key When this is pressed twice, you will return to the **SERVICE MENU**.

2) Method of setting 2.V/C, 3.AUDIO, 4.DEF and 5.VSM PRESET.

- ① 2~6 Key Select one from 2. V/C, 3. AUDIO, 4. DEF and 5. VSM PRESET.
- ② FUNCTION UP/DOWN Key Select setting items.
- ③ FUNCTION +/- Set (adjust) the setting values of the setting items.
(When 1.CUTOFF of 2.V/C is selected, press the 1 key, and the whole will change to a faint horizontal line appearing in its center. Press the 2 key, and the screen will return to the original 1.CUTOFFscreen.)
- ④ MENU Key Memorize the setting value.
(Before storing the setting values in memory, do not press the CH, TV, POWER ON / OFF key - if you do, the values will not be stored in memory.)
- ⑤ INFORMATION Key Return to the **SERVICE MENU** screen.



3) Method of setting 6.VPS and 7.AUTO PROGRAM.

- 6.VPS This mode displayed monitor of VPS systems. **Do not adjust**
- 7.AUTO PROGRAM When the MAIN POWER is turned on with the state of AUTO PROGRAM ON, you get a mode that initializes every existing set value including language selection. Because this mode is set at the factory upon completion of the adjustment, you need not to use it for service. **Do not adjust in this mode.**

(4) Release of SERVICE MENU

- 1) After completing the setting, return to the **SERVICE MENU**, then again press the **INFORMATION** key.

POWER SUPPLY CHECK

Item	Measuring instrument	Test point	Adjustment part	Description
Check of B1 voltage	Signal generator DC voltmeter	TP-91(B1) TP-E () [X connector in MAIN PWB]		<ol style="list-style-type: none"> 1. Receive a whole black signal. 2. Connect a DC voltmeter to TP-91(B1) and TP-E (). 3. Make sure that the voltage is $DC141.5 \pm 2.0V$.

FOCUS ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of FOCUS	Signal generator		FOCUS VR [In HVT]	<ol style="list-style-type: none"> 1. Receive a cross-hatch signal. 2. While watching the screen, adjust the FOCUS VR to make the vertical and horizontal lines as fine and sharp as possible. 3. Make sure that when the screen is darkened, the lines remain in good focus.

IF CIRCUIT ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description																											
Adjustment of VCO	Remote control unit		P. CW TRANSF. [In IF PWB]	<div><div><div>VCO(CW) ***.## MHz ← tv</div><div>TOO HIGH</div><div>ABOVE REFERENCE</div><div>JUST REFERENCE ← YELLOW</div><div>BELOW REFERENCE</div><div>TOO LOW</div><div>i : EXIT</div></div><div><table><tr><th rowspan="2">Screen display</th><th colspan="3">Step</th></tr><tr><th>1</th><th>→2</th><th>→ 3</th></tr><tr><td>TOO HIGH</td><td>Yellow</td><td>→ Blue</td><td>→ Blue</td></tr><tr><td>ABOVE REFERENCE</td><td>Blue</td><td>→ Blue</td><td>→ Blue</td></tr><tr><td>JUST REFERENCE</td><td>Blue</td><td>→ Blue</td><td>→ Yellow</td></tr><tr><td>BELOW REFERENCE</td><td>Blue</td><td>→ Blue</td><td>→ Blue</td></tr><tr><td>TOO LOW</td><td>Blue</td><td>→ Yellow</td><td>→ Blue</td></tr></table></div></div> <div><div><div>1. Do not make any adjustment unless the adjustment is out of way and you cannot get correct PICTURE.</div><div>2. Select 1.IF from the SERVICE MENU.</div><div>3. Press 1 key and select 1.VCO.</div><div>4. Select a receivable broadcast channel with the CHANNEL key.</div><div>5. Turn the core of P. CW TRANSF. until the colour of the characters TOO HIGH displayed on the screen changes from blue to Yellow. (Step 1)</div><div>6. Turn the core of P. CW TRANSF. until the colour of the characters TOO LOW changes from blue to Yellow. (Step 2)</div><div>7. Then slowly turn back the core of P. CW TRANSF. until the colour of the characters JUST REFERENCE changes from blue to Yellow. (Step 3)</div><div>8. Press the INFORMATION key three times to return to normal screen.</div><div>9. Perform CHANNEL PRESET again, and make sure that each broadcast is being received properly.</div></div></div>	Screen display	Step			1	→2	→ 3	TOO HIGH	Yellow	→ Blue	→ Blue	ABOVE REFERENCE	Blue	→ Blue	→ Blue	JUST REFERENCE	Blue	→ Blue	→ Yellow	BELOW REFERENCE	Blue	→ Blue	→ Blue	TOO LOW	Blue	→ Yellow	→ Blue
Screen display	Step																														
	1	→2	→ 3																												
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BELOW REFERENCE	Blue	→ Blue	→ Blue																												
TOO LOW	Blue	→ Yellow	→ Blue																												
Adjustment of DELAY POINT	Remote control unit		DELAY POINT (AGC TAKE-OVER)	<div><table><tr><th>Setting item (Adjustment item)</th><th>Variable range</th><th>Initial setting value</th></tr><tr><td>DELAY POINT (AGC TAKE-OVER)</td><td>0~63</td><td>30</td></tr></table><div><div>1. Receive a black and white signal (colour off).</div><div>2. Select 1.IF from the SERVICE MENU.</div><div>3. Select 2.DELAY POINT by pressing the 2 key on the remote control.</div><div>4. Adjust the FUNCTION - or + key until video noise disappears.</div><div>5. Press the MENU key and memorize the set value.</div><div>6. Turn to other channels and make sure that there are no irregularities.</div></div></div>	Setting item (Adjustment item)	Variable range	Initial setting value	DELAY POINT (AGC TAKE-OVER)	0~63	30																					
Setting item (Adjustment item)	Variable range	Initial setting value																													
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VSM PRESET SETTING

Item	Measuring instrument	Test point	Adjustment part	Description
Setting of VSM PRESET ADJUST	Remote control unit		1. BRIGHT 2. CONT. 3. COLOUR 4. SHARP 5. TINT 6. R DRIVE 7. B DRIVE 8. BASS 9. TREBLE	1. Select 5.VSM PRESET from the SERVICE MENU. 2. Select COOL with the MENU key of the remote control unit. 3. Adjust the FUNCTION UP/DOWN and +/- key to bring the set values of 1.BRIGHT ~ 9.TREBLE to the values shown in the table. 4. Press the MENU key and memorize the set value. 5. Respectively select the VSM PRESET mode for NORMAL and WARM, and make similar adjustment as in 3 above. 6. Press the MENU key and memorize the set value. * Refer to OPERATING INSTRUCTIONS for the PICTURE MODE.

VSM preset mode		COOL	NORMAL	WARM
Setting item				
1. BRIGHT SETTING VALUE		+0	+0	+0
2. CONT. SETTING VALUE		+12	+10	+2
3. COLOUR SETTING VALUE		+6	+0	-2
4. SHARP SETTING VALUE		+0	+0	-2
5. TINT SETTING VALUE		+0	+0	+0
6. R DRIVE SETTING VALUE		-10	+15	+22
7. B DRIVE SETTING VALUE		-20	-25	-43
8. BASS SETTING VALUE		+0	+0	+0
9. TREBLE SETTING VALUE		+0	+0	+0

SETTING VALUES OF VSM PRESET

VIDEO/CHROMA CIRCUIT ADJUSTMENT

The setting (adjustment) using the REMOTE CONTROL UNIT is made on the basis of the initial setting values.
The setting values which adjust the screen to the optimum condition can be different from the initial setting values.

Setting Item (Adjustment Item)		Initial setting value
1.CUTOFF	R	-100
	G	-100
	B	-100
2.DRIVE	R	+0
	B	+0
3.BRIGHT		+0
4.CONTRAST		+0

Colour system Setting item		Initial setting value	
		PAL SECAM	NTSC 3.58 NTSC 4.43
5.COLOUR		+0	+0
6.TINT	Composite VIDEO	—	+0
	S VIDEO	—	+0
7.BLACK OFFSET	R-Y	+0	—
	B-Y	+0	—
8.SHARP		-15	—
9.TEXT CONT		+0	—

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of WHITE BALANCE (Low Light)	Signal generator		1.CUT OFF (R)*** (G)*** (B)*** SCREEN VR [In HVT]	<ul style="list-style-type: none">● Set the PICTURE MODE to COOL.1. Receive a black and white signal(colour off).2. Select 2. V/C from the SERVICE MENU.3. Select 1.CUT OFF with the FUNCTION UP/DOWN key.4. Select the regular mode.5. Show one horizontal line with the 1 key. With the SCREEN VR, adjust so that the horizontal line will not be too bright.6. Gradually turn the SCREEN VR from the left end to the right direction to bring one of the red, green or blue colour faintly visible.7. Press 4~9 key, and bring out the other 2 colours and make one horizontal line visible in white.8. Turn the SCREEN VR and bring one white horizontal line faintly visible.9. Press 2 key, turn off 1.CUT OFF screen.10.Press the MENU key and memorize the set value.
	Remote control unit			

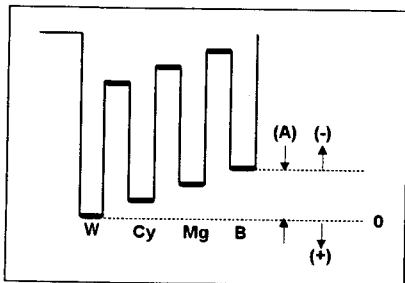
Remote Control Unit



H.LINE ON 1	H.LINE OFF 2	EXIT 3
R CUTOFF▲ 4	G CUTOFF▲ 5	B CUTOFF▲ 6
R CUTOFF▼ 7	G CUTOFF▼ 8	B CUTOFF▼ 9

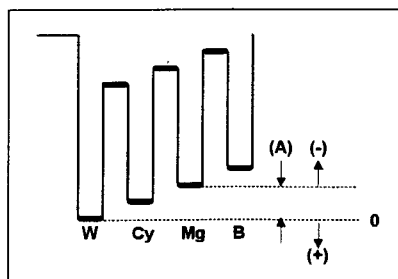
Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of WHITE BALANCE (High Light)	Signal generator Remote control unit		2.DRIVE (R)*** (B)***	1. Receive a black and white signal (colour off). 2. Select 2.V/C from the SERVICE MENU. 3. Select 2.DRIVE with the FUNCTION UP/DOWN key. 4. Change the screen colour to white with 4 key or 7 key (Drive of Red), 6 key or 9 key (Drive of Blue). 5. Press the MENU key, and memorize the set values.
<div><div>REMOTE CONTROL UNIT</div><div><div><div>1</div><div>2</div><div>3</div><div>4</div><div>5</div><div>6</div><div>7</div><div>8</div><div>9</div></div><div><div>DRIVE(R) ▲</div><div>DRIVE(B) ▲</div><div>DRIVE(R) ▼</div><div>DRIVE(B) ▼</div></div></div></div>				
Adjustment of SUB BRIGHT	Remote control unit		3.BRIGHT	1. Receive any broadcast. 2. Select 2.V/C from the SERVICE MENU. 3. Select 3.BRIGHT with the FUNCTION UP/DOWN key. 4. Set the initial setting value with the FUNCTION +/- key. 5. If the brightness is not the best with the initial setting value, make fine adjustment until you get the best brightness. 6. Press the MENU key and memorize the set value.
Adjustment of SUB CONT.	Remote control unit		4.CONT.	1. Receive any broadcast. 2. Select 2.V/C from the SERVICE MENU. 3. Select 4.CONT with the FUNCTION UP/DOWN key. 4. Set the initial setting value with the FUNCTION - or + key. 5. If the contrast is not the best with the initial setting value, make fine adjustment until you get the best contrast. 6. Press the MENU key and memorize the set value.

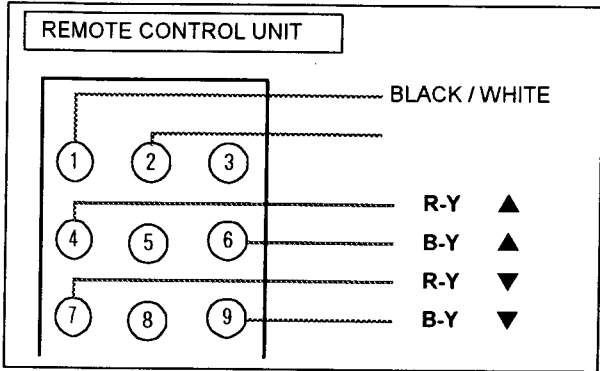
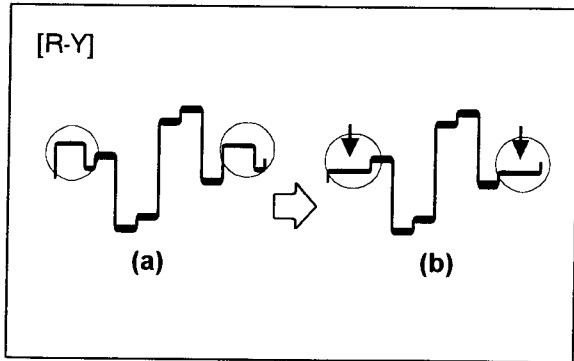
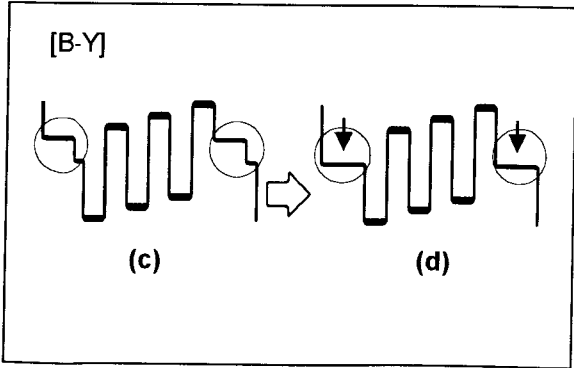
Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of SUB COLOUR I	Remote control unit		5.COLOUR (PAL~NTSC)	[Method of adjustment without using measuring instrument]
			PAL COLOUR	(PAL COLOUR) 1. Receive PAL broadcast. 2. Select 2.V/C from the SERVICE MENU. 3. Select 5.COLOUR with the FUNCTION UP/DOWN key. 4. Set the initial setting value for PAL COLOUR with the FUNCTION - or + key. 5. If the colour is not the best with the initial set value, make fine adjustment until you get the best colour. 6. Press the MENU key and memorize the set value.
			SECAM COLOUR (AV-28WR2EN)	(SECAM COLOUR) 1. Receive a SECAM broadcast. Make fine adjustment of SECAM COLOUR in the same manner as for above.
			NTSC COLOUR	(NTSC 3.58 COLOUR) 1. Input a NTSC 3.58MHz COMPOSITE VIDEO signal from the EXT terminal. 2. Make similar fine adjustment of NTSC 3.58 COLOUR in the same manner as for above. (NTSC 4.43 COLOUR) 1. When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values.

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of SUB COLOUR II	Signal generator Oscilloscope Remote control unit	TP-47B TP-E($\frac{1}{\sqrt{2}}$) [CRT SOCKET PWB]	5.COLOUR (PAL~NTSC)	[Method of adjustment using measuring instrument]
			PAL COLOUR	(PAL COLOUR) 1. Receive a PAL full field colour bar signal(75% white). 2. Select 2.V/C from the SERVICE MENU. 3. Select 5.COLOUR with the FUNCTION UP/DOWN key. 4. Set the initial setting value of PAL COLOUR with the FUNCTION - or + key. 5. Connect the oscilloscope between TP-47B and TP-E($\frac{1}{\sqrt{2}}$) 6. Adjust PAL COLOUR and bring the value of (A) in the illustration to +12V (voltage difference between white (w) and blue (B)). 7. Press the MENU key and memorize the setting value.
			SECAM COLOUR (AV-28WR2EN)	(SECAM COLOUR) 1. Receive a SECAM full field colour bar signal(75% white). 2. Set the initial setting value of SECAM COLOUR with the FUNCTION +/- key. 3. Adjust SECAM COLOUR and bring the value of (A) of the illustration to +5V. 4. Press the MENU key and memorize the setting value.
			NTSC COLOUR	(NTSC 3.58 COLOUR) 1. Input a NTSC 3.58MHz COMPOSITE VIDEO signal (full field colour bar with 75% white) from the EXT terminal. 2. Set the initial setting value of NTSC 3.58 COLOUR with the FUNCTION +/- key. 3. Adjust NTSC 3.58 COLOUR and bring the value of (A) of the illustration to +8V (W~B). 4. Press the MENU key and memorize the setting value. (NTSC 4.43 COLOUR) 1. When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values.



Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of SUB TINT I	Remote control unit		6.TINT	[Method of adjustment without using measuring instrument]
			NTSC 3.58 TINT	[NTSC 3.58 TINT] 1. Input a NTSC 3.58MHz COMPOSITE VIDEO signal (full field colour bar with 75% white) from the EXT terminal. 2. Select 2.V/C from the SERVICE MENU. 3. Select 6. TINT with the FUNCTION UP/DOWN key. 4. Set the initial setting value of NTSC 3.58 TINT with the FUNCTION +/- key. 5. If you cannot get the best tint with the initial setting value, make fine adjustment until you get the best tint. 6. Press the MENU key and memorize the set value.
			NTSC 4.43 TINT	[NTSC 4.43 TINT] 1. When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values.
Adjustment of SUB TINT II	Signal generator Oscilloscope Remote control unit	TP-47B TP-E() [CRT SOCKET PWB]	6. TINT	[Method of adjustment using measuring instrument]
			NTSC 3.58 TINT	[NTSC 3.58 TINT] 1. Input a NTSC 3.58MHz COMPOSITE VIDEO signal (full field colour bar with 75% white) from the EXT terminal. 2. Select 2.V/C from the SERVICE MENU. 3. Select 6.TINT with the FUNCTION UP/DOWN key. 4. Set the initial setting value of NTSC 3.58 TINT with the FUNCTION - or + key. 5. Connect the oscilloscope between TP-47B and TP-E() 6. Adjust NTSC 3.58 TINT to bring the value of (A) in the illustration to +3V (voltage difference between white (W) and magenta (Mg)). 7. Press the MENU key and memorize the setting value
			NTSC 4.43 TINT	[NTSC 4.43 TINT] 1. When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values.



Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of BLACK OFFSET (SECAM) I	Remote control unit		7. BLACK OFFSET (R-Y) *** (B-Y) ***	<p>[Method of adjustment without measuring instrument]</p> <ol style="list-style-type: none"> 1. Receive a SECAM broadcast. 2. Select 2. V/C from SERVICE MENU. 3. Select 7. BLACK OFFSET with the FUNCTION UP/DOWN key. 4. Set the initial setting value for BLACK OFFSET (R-Y) and (B-Y) with 4 and 7 or 6 and 9 keys of the remote control. 5. If the picture is not the best with the initial setting value, make fine adjustment until you get the best picture. 6. Press the MENU key and memorize the setting value.
				
Adjustment of BLACK OFFSET (SECAM) II	Signal generator Oscilloscope Remote control unit	35 PIN (R-Y) 36 PIN (B-Y) IC-101 OF MAIN PWB	7. BLACK OFFSET (R-Y) *** (B-Y) ***	<p>[Method of adjustment using measuring instrument]</p> <ol style="list-style-type: none"> 1. Receive a SECAM COLOUR bar signal (full field colour bar 75% white). 2. Select 2. V/C from SERVICE MENU. 3. Select 7. BLACK OFFSET with the FUNCTION UP/DOWN key. 4. Connect the oscilloscope between 35 pin of IC-101 and TP-E (⚡). 5. By using 4 and 7 keys of the remote control, adjust the BLACK OFFSET (R-Y) so that it becomes the waveform changes from (a) to (b) shown in the figure. 6. Connect the oscilloscope between 36 pin of IC-101 and TP-E. 7. By using 6 and 9 keys of the remote control, adjust the BLACK OFFSET (B-Y) so that it becomes the waveform changes from (c) to (d) shown in the figure. 8. If the picture is not the best with the adjusted picture, make fine adjustment until you get the best picture. 9. Press the MENU key and memorize the setting value.
				 

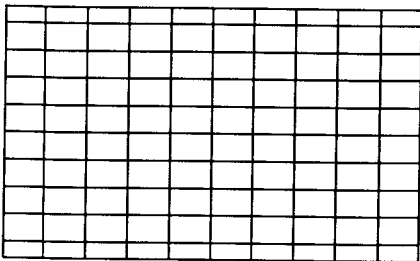
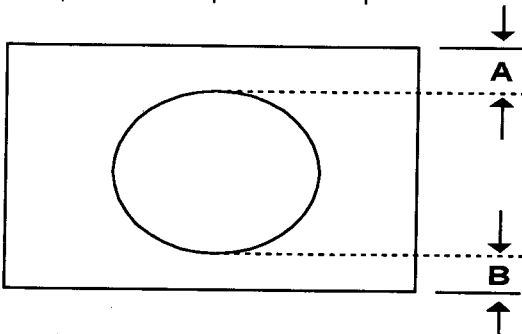
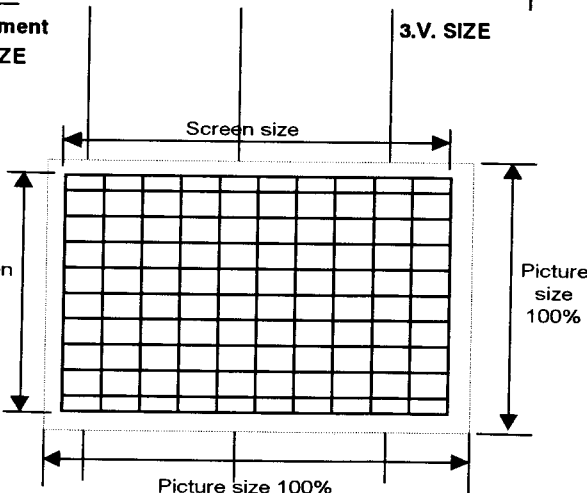
DEFLECTION CIRCUIT ADJUSTMENT

There are 5 modes of the adjustment (1) 50Hz mode (①PANORAMIC ②FULL ③REGULAR ④14:9 ZOOM ⑤16:9 ZOOM ⑥16:9 ZOOM SUB TITLE), (2) 60Hz mode (each aspect mode) depending upon the kind of signals (vertical frequency 50Hz / 60Hz).

- When the 50Hz PANORAMIC mode has been established, the setting of other modes will be done automatically. However, if the picture quality has not been optimized, adjust each mode again, respectively.
- The adjustment using the remote control unit is made on the basis of the initial setting values.
- The setting values which adjust the screen to the optimum condition can be different from the initial setting values.

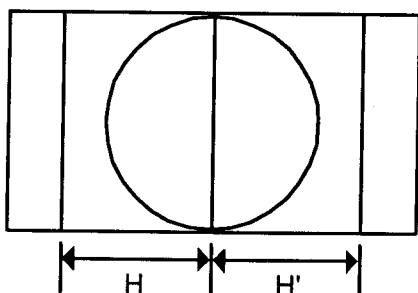
Setting item	Adjustment name	Initial setting value			
		50Hz mode			
		PANORAMIC	14:9 ZOOM	16:9 ZOOM	FULL
1.TRAPEZ	Trapezoidal distortion correction	-12	-1	-1	+1
2.V-SHIFT	Vertical center	+1	+0	-1	+0
3.V-SIZE	Vertical height	-10	+10	+30	-15
4.H-CENT	Horizontal center	-10	-10	-10	-10
5.H-SIZE	Horizontal width	+21	-13	-8	-7
6.EW-PIN	Side pin correction	-7	+0	+7	-7
7.V-S.CR	Vertical height correction	+5	-8	-8	-10
8.V-LIN	Vertical Linearity	+1	-1	-1	-1
9.V-EDGE	Vertical edge correction	+7	+0	+0	+0
10.EW-COR	Side pin four corner correction	+7	-1	+0	-9
11.ABL POINT	Auto beam limiter point	+0	+3	+0	+0
12.ABL GAIN	auto beam limiter gain	+0	+2	+0	+0

Setting item	Adjustment name	Initial setting value		
		50Hz mode		60Hz mode
		REGULAR	16:9 ZOOM SUB TITLE	PANORAMIC
1.TRAPEZ	Trapezoidal distortion correction	+0	+2	-1
2.V-SHIFT	Vertical center	+2	-16	+5
3.V-SIZE	Vertical height	-12	+24	-2
4.H-CENT	Horizontal center	-10	-10	-6
5.H-SIZE	Horizontal width	-21	-7	+0
6.EW-PIN	Side pin correction	-8	+2	-1
7.V-S.CR	Vertical height correction	-10	-2	+0
8.V-LIN	Vertical Linearity	-1	-7	+0
9.V-EDGE	Vertical edge correction	+0	+0	+0
10.EW-COR	Side pin four corner correction	-7	+1	-2
11.ABL POINT	Auto beam limiter point	+3	+0	+0
12.ABL GAIN	auto beam limiter gain	+2	+0	+0

Item	Measuring instrument	Test point	Adjustment part	Description																					
Adjustment of TRAPEZ	Signal generator Remote control unit		1.TRAPEZ	[50Hz PANORAMIC mode] 1. Receive a cross-hatch signal of vertical frequency 50Hz. 2. Select 4.DEF from the SERVICE MENU. 3. Select 1.TRAPEZ with the FUNCTION UP/DOWN key. 4. Set the initial setting value of TRAPEZ with the FUNCTION - or + key. 5. Adjust TRAPEZ and bring the VERTICAL lines at the right and left edges of the screen parallel .																					
<div><div>Parallel</div></div>																									
Adjustment of V-SHIFT			2.V-SHIFT	6. Receive a circle pattern signal 7. Select 2.V-SHIFT and set the initial setting value. 8. Adjust V-SHIFT to make A = B . 9. Press the MENU key and memorize the set value.																					
																									
Adjustment of V-SIZE			3.V. SIZE	10. Receive a cross-hatch signal. 11. Select 3.V-SIZE and set the initial setting value. 12. Adjust V-SIZE and make sure that the vertical screen size of the picture size is in the bellow table. 13. Press the MENU key and memorize the set value. 14. Input a NTSC VIDEO signal from the EXT terminal, and make sure that the vertical screen size of the PANORAMIC mode is in the table below. 15. Press the MENU key and memorize the set value.																					
																									
<table><tr><th>MODE</th><th>FULL</th><th>REGULAR</th><th>PANORAMIC</th><th>14:9 ZOOM</th><th>16:9 ZOOM</th><th>16:9 ZOOM SUB TITLE</th></tr><tr><td>SCREEN TOP</td><td>92%</td><td>92%</td><td>87%</td><td>80%</td><td>70%</td><td>70%</td></tr><tr><td>SCREEN BOTTOM</td><td>92%</td><td>92%</td><td>87%</td><td>80%</td><td>70%</td><td>83%</td></tr></table> <p>[SCREEN SIZE]</p>					MODE	FULL	REGULAR	PANORAMIC	14:9 ZOOM	16:9 ZOOM	16:9 ZOOM SUB TITLE	SCREEN TOP	92%	92%	87%	80%	70%	70%	SCREEN BOTTOM	92%	92%	87%	80%	70%	83%
MODE	FULL	REGULAR	PANORAMIC	14:9 ZOOM	16:9 ZOOM	16:9 ZOOM SUB TITLE																			
SCREEN TOP	92%	92%	87%	80%	70%	70%																			
SCREEN BOTTOM	92%	92%	87%	80%	70%	83%																			

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of H.CENTER			4.H-CENT.	16.Receive a circle pattern signal. 17.Select 4.H-CENT and set the initial setting value. 18.Adjust H-CENT to make C=D. 19.Press the MENU key and memorize the set value.
<div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div><div></div><div></div></div><div><div></div><div></div></div></div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div><div></div><div></div></div><div><div></div><div></div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> 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Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of V-S.CR V-LIN V-EDGE			7.V-S.CR 8.V-LIN 9.V-EDGE	<p>★ No alignment, but adjust this mode if result of no alignment is too bad.</p> <p>29.Select 7.V-S.CR, 8.V-LIN and 9.V-EDGE and set the initial setting value.</p> <p>30.Adjust each item to get exact square of cross-hatch pattern.</p> <p>31.Press the MENU key and memorize the set value.</p>
Adjustment of EW-COR			10.EW-COR	<p>★ No alignment, but adjust this mode if result of no alignment is too bad.</p> <p>32.Select 10.EW-COR and set the initial setting value.</p> <p>33.Adjust EW-COR and make the vertical lines at the four corners of the screen straight.</p> <p>34.Press the MENU key and memorize the set value.</p>
				<p>At first the adjustment in 50Hz-PANORAMIC mode should be done, then the data for the other zoom mode is corrected in the respective value at the same time. And confirm the deflection adjustment initial setting value in 60Hz(NTSC EXT mode) PANORAMIC mode. If the adjustment in 50Hz each zoom mode has been done and stored, the data for the same aspect modes in 60Hz is corrected in the respective value. Only the data for the other aspect mode in 60Hz is corrected for itself.</p>
Adjustment of H.BLANKING			H.BLK Capacitor [In MAIN PWB]	<p>1. Receive the PAL circle pattern in REGULAR mode.</p> <p>2. Adjust the H.BLK capacitor to equalize widths H and H' as figure.</p>



AUDIO CIRCUIT ADJUSTMENT

- Do not touch 3.AUDIO(1. CONC LIMIT, 2. A2 ID THR) of the SERVICE MENU as it requires no adjustment.

3. AUDIO

Setting item	Variable range	fixed value
1. CONC LIMIT(<i>Do not adjust</i>)	00H~FFH	0AH
2. A2 ID THR(<i>Do not adjust</i>)	00H~FFH	19H

PARTS LIST

CAUTION

- The parts identified by the \triangle symbol are important for the safety . Whenever replacing these parts, be sure to use specified ones to secure the safety .
 - The parts not indicated in this Parts List and those which are filled with lines — in the Parts No. columns will not be supplied .
 - P. W. Board Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied .
 - As a rule, the resistors and capacitors which are indicated as shown in "HOW TO EXPRESS PARTS NUMBERS OF STANDARD PARTS" are not shown in the list of the parts on the board .
- When ordering the service parts, confirm the resistance/rated power, capacitance/rated voltage, and type of the parts, then order by the part No. indicated according to "HOW TO EXPRESS PARTS NUMBERS OF STANDARD PARTS" .

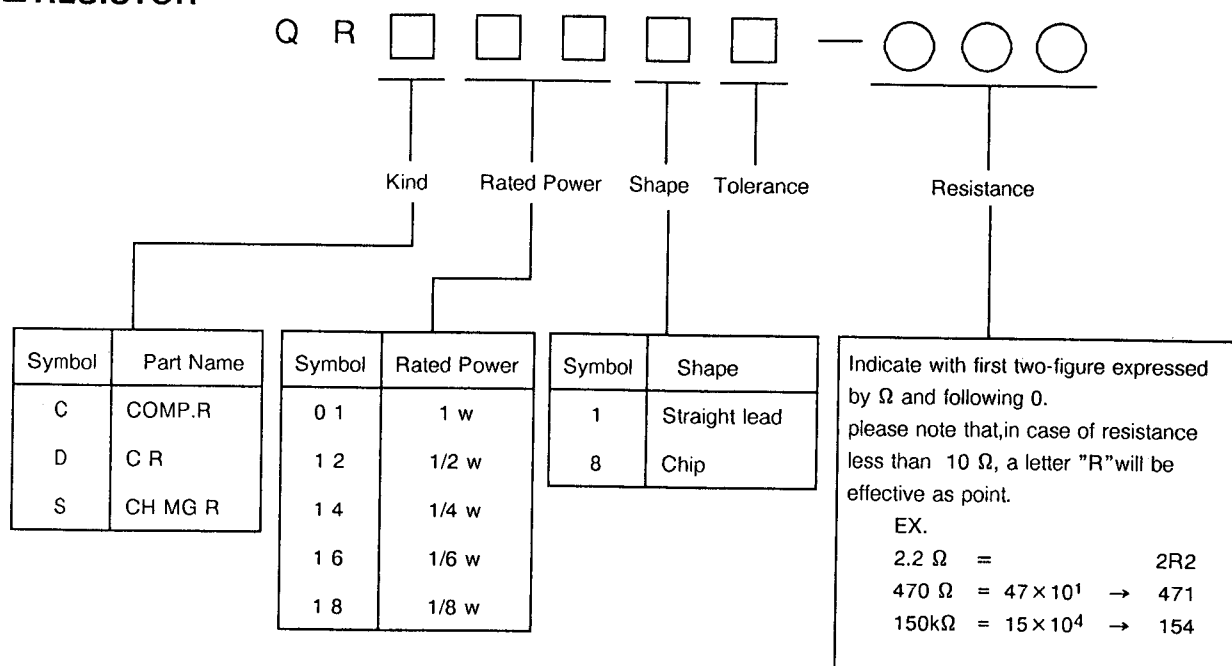
ABBREVIATIONS OF RESISTORS, CAPACITORS AND TOLERANCES

RESISTORS		CAPACITORS	
C R	Carbon Resistor	C CAP.	Ceramic Capacitor
F R	Fusible Resistor	E CAP.	Electrolytic Capacitor
P R	Plate Resistor	M CAP.	Mylar Capacitor
V R	Variable Resistor	HV CAP.	High Voltage Capacitor
HV R	High Voltage Resistor	MF CAP.	Metalized Film Capacitor
MF R	Metal Film Resistor	MM CAP.	Metalized Mylar Capacitor
MG R	Metal Glazed Resistor	MP CAP.	Metalized Polystyrol Capacitor
MP R	Metal Plate Resistor	PP CAP.	Polypropylene Capacitor
OM R	Metal Oxide Film Resistor	PS CAP.	Polystyrol Capacitor
CMF R	Coating Metal Film Resistor	TF CAP.	Thin Film Capacitor
UNF R	Non-Flammable Resistor	MPP CAP.	Metalized Polypropylene Capacitor
CH V R	Chip Variable Resistor	TAN. CAP.	Tantalum Capacitor
CH MG R	Chip Metal Glazed Resistor	CH C CAP.	Chip Ceramic Capacitor
COMP. R	Composition Resistor	BP E CAP.	Bi-Polar Electrolytic Capacitor
LPTC R	Linear Positive Temperature Coefficient Resistor	CH AL E CAP.	Chip Aluminum Electrolytic Capacitor
		CH AL BP CAP.	Chip Aluminum Bi-Polar Capacitor
		CH TAN. E CAP.	Chip Tantalum Electrolytic Capacitor
		CH AL BP E CAP.	Chip Tantalum Bi-Polar Electrolytic Capacitor

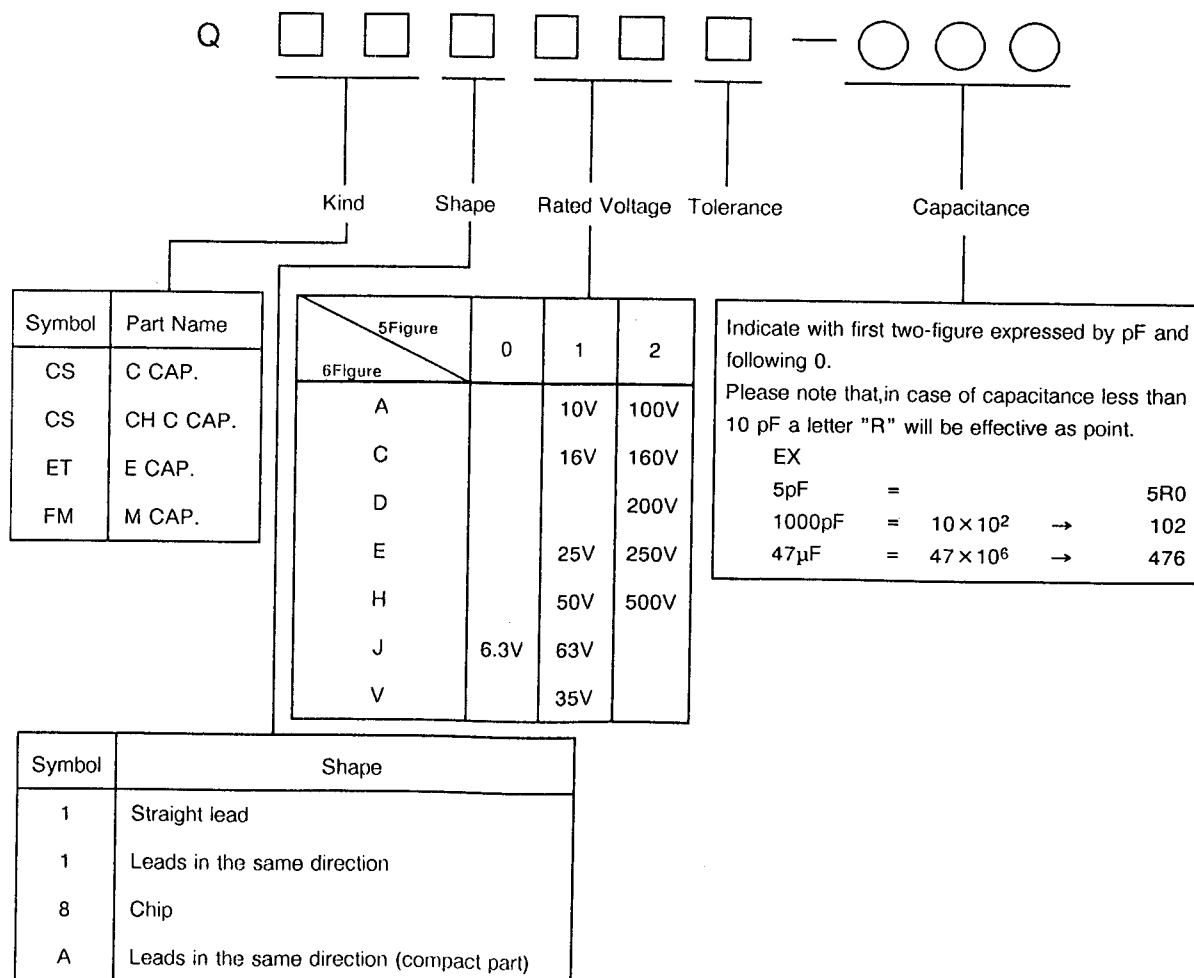
TOLERANCES									
F	G	J	K	M	N	R	H	Z	P
$\pm 1\%$	$\pm 2\%$	$\pm 5\%$	$\pm 10\%$	$\pm 20\%$	$\pm 30\%$	+ 30% - 10%	+ 50% - 10%	+ 80% - 20%	+ 100% - 0%

HOW TO EXPRESS PARTS NUMBERS OF STANDARD PARTS

■ RESISTOR



■ CAPACITOR



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[AV-28WR2EK]	
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● AUTO ASPECT MODULE PW BOARD ASS'Y (SJF0W001A(U))	54
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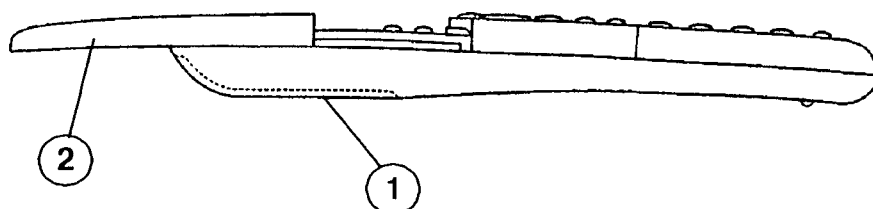
USING P.W. BOARD & REMOTE CONTROL UNIT

P.W.B ASS'Y \ Model	AV-28WR2EN	AV-28WR2EK
MAIN P.W.B	SJF-1002A-U2	SJF-1902A-U2
POWER DEF P.W.B	SJF-2002A-U2	←
CRT SOCKET P.W.B	SJF-3002A-U2	←
FRONT CONTROL P.W.B	SJF-8002A-U2	←
DOLBY P.W.B	SJF0D001A-U2	←
IF P.W.B	SJF0F001A-U2	SJF0F901A-U2
AV TERMINAL P.W.B	SJF0J001A-U2	←
AUTO ASPECT MODULE P.W.B	SJF0W001A(U)	←
REMOTE CONTROL UNIT	RM-C793-1E	RM-C792-1E

EXPLODED VIEW PARTS LIST

△ Ref. No.	Part No.	Part Name	Description	Local
△ L01	CELD061-001J2	DEG COIL		*
△ V01	W66ESF002X14	CRT(ITC)	(Inc.DY,PC,WED)	*
△ T2551	CETH019-00AJ1	H.V.TRANSF.	(SERVICE)	*
1	CHGB0029-0B	BRAIDED ASSY		*
2	CHGB0017-0B	BRAIDED SUB ASSY	(×2)	*
3	CM36311-001	KNOB CAP		*
4	CHFB125-06BD	FFC WIRE		*
5	CM12931-A01-E	CONTROL BASE		*
7	CM12930-B01-E	CHASSIS BASE		*
8	CM12924-C03-E	AV TERMINAL BASE		*
9	SBSB3012M	TAPPING SCREW	(×5)For AV TERM.BOARD	*
△ 10	AEEMP001-185	POWER CORD		*
△ 11	CM46618-A01-E	POWER CORD CLAMP		*
△ 12	CM12582-A04-KD	REAR COVER		*
13	GBSA4016N	TAPPING SCREW	(×13)For R.COVER	*
△ 14	CM23157-006-E	RATING LABEL	For GBR/GER/ITA	*
△ 15	CM23049-006-E	RATING LABEL	For GBR/ESP/FRA	*
100	CM12833-A0C-E	FRONT CABINET	Inc.No.101~112	*
101	CM35865-00C	INSULATOR(L)	(SERVICE)	
102	CM35865-00D	INSULATOR(R)	(SERVICE)	
103	CM36223-002-H	L.E.D.LENS		
104	CM36171-00A-H	SP NET ASSY	(×2)	
105	CM35235-003-H	SPRING		
106	CM36225-009	POWER KNOB	(SERVICE)	
107	CM48125-001	JVC MARK		
108	CM48229-00A	DOOR LATCH		
109	CM36618-001-E	OPERATION SHEET		
110	CM22898-007	CONTROL DOOR	(SERVICE)	
111	CM48076-002-H	C.D.S.WINDOW		
112	CM35893-A01	CHASSIS RAIL	(×2)	
200	CEBSF10P-06KJ6	SPEAKER	(×2)SP001,SP02	
201	2528MXSP-1SWE	DOME SPEAKER	(×2)Inc.No.202,203	*
202	CHGS0057-0A-N	S.P WIRE ASSY	(×2)	
203	CM12878-B01-E	SPEAKER BOX	(×2)(DOME BOX)	*

REMOTE CONTROL UNIT



REMOTE CONTROL UNIT PARTS LIST

[RM-C793-1E]

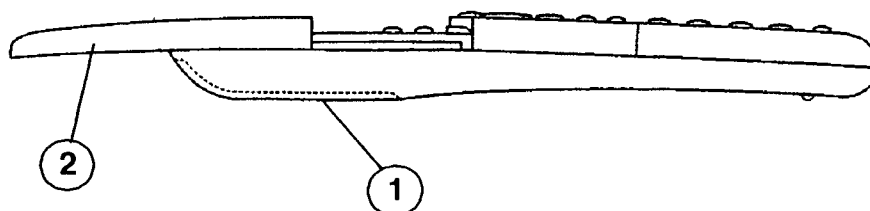
△ Symbol No.	Part No.	Part Name	Description	Local
1	BGV110201A	BATTERY COVER		
2	BGV110307A	SLIDE COVER		

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EXPLODED VIEW PARTS LIST

△ Ref. No.	Part No.	Part Name	Description	Local
△ L01	CELD061-001J2	DEG COIL		*
△ V01	W66ESF002X14	CRT(ITC)	(Inc.DY,PC,WED)	*
△ T2551	CETH019-00AJ1	H.V.TRANSF.	(SERVICE)	*
1	CHGB0029-0B	BRAIDED ASSY		*
2	CHGB0017-0B	BRAIDED SUB ASSY	(×2)	*
3	CM36311-001	KNOB CAP		*
4	CHFB125-06BD	FFC WIRE		*
5	CM12931-A01-E	CONTROL BASE		*
7	CM12930-B01-E	CHASSIS BASE		*
8	CM12924-C03-E	AV TERMINAL BASE		*
9	SBSB3012M	TAPPING SCREW	(×5)For AV TERM.BOARD	*
△ 10	AEEMP003-185A	POWER CORD		*
△ 11	CM46618-A01-E	POWER CORD CLAMP		*
△ 12	CM12582-A04-KD	REAR COVER		*
13	GBSA4016N	TAPPING SCREW	(×13)For R.COVER	*
△ 14	CM23047-004-E	RATING LABEL		*
100	CM12833-A0C-E	FRONT CABINET	Inc.No.101~112	*
101	CM35865-00C	INSULATOR(L)	(SERVICE)	
102	CM35865-00D	INSULATOR(R)	(SERVICE)	
103	CM36223-002-H	L.E.D.LENS		
104	CM36171-00A-H	SP NET ASSY	(×2)	
105	CM35235-003-H	SPRING		
106	CM36225-009	POWER KNOB	(SERVICE)	
107	CM48125-001	JVC MARK		
108	CM48229-00A	DOOR LATCH		
109	CM36618-001-E	OPERATION SHEET		
110	CM22898-007	CONTROL DOOR	(SERVICE)	
111	CM48076-002-H	C.D.S.WINDOW		
112	CM35893-A01	CHASSIS RAIL	(×2)	
200	CEBSF10P-06KJ6	SPEAKER	(×2)SP01,SP02	
201	2528MXSP-1SWE	DOVE SPEAKER	(×2)Inc.No.202,203	*
202	CHGS0057-0A-N	S.P WIRE ASSY	(×2)	
203	CM12878-B01-E	SPEAKER BOX	(×2)(DOVE BOX)	*

REMOTE CONTROL UNIT

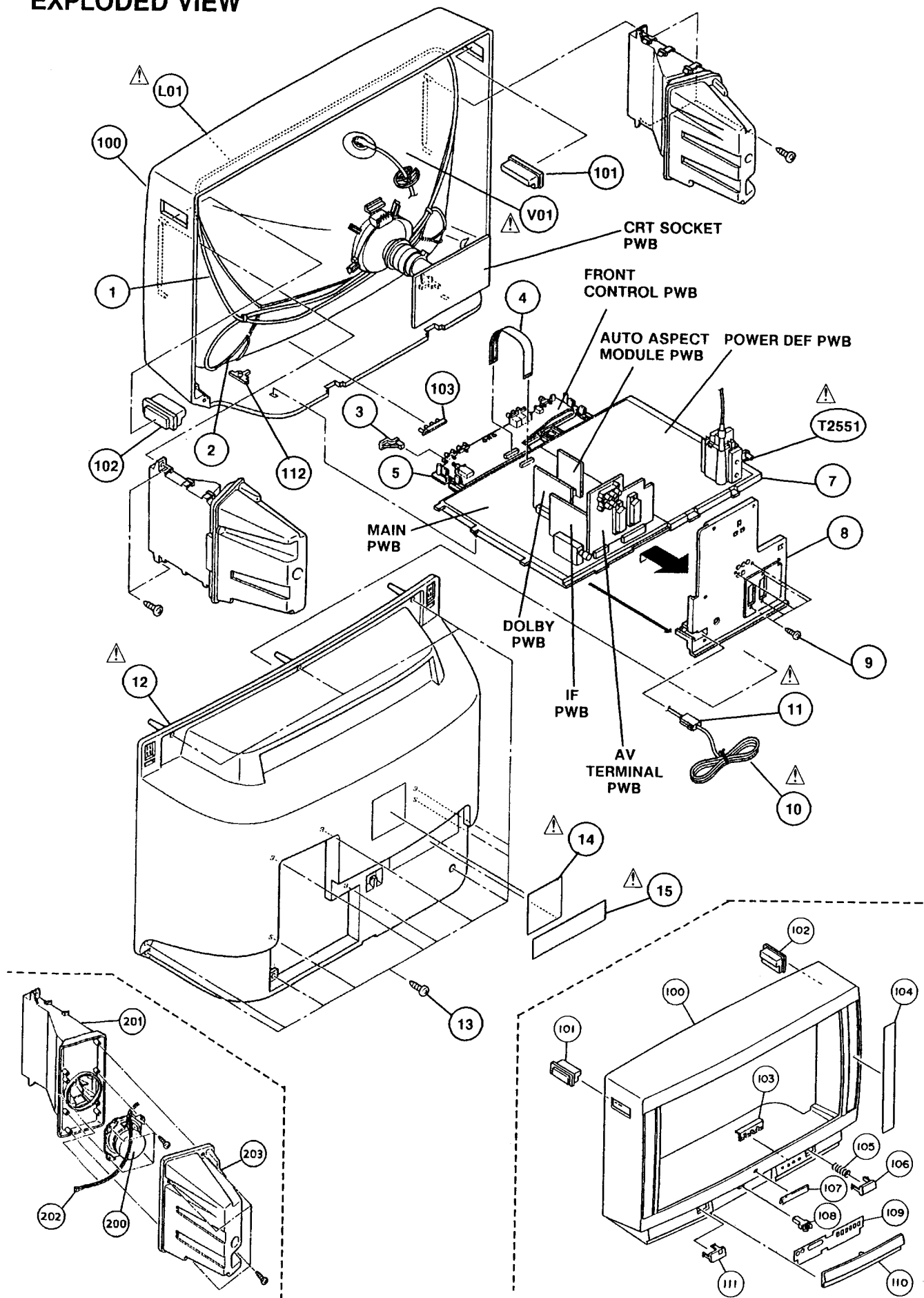


REMOTE CONTROL UNIT PARTS LIST

[RM-C792-1E]

△ Symbol No.	Part No.	Part Name	Description	Local
1	BGV110201A	BATTERY COVER		
2	BGV110306A	SLIDE COVER		

EXPLODED VIEW



PRINTED WIRING BOARD PARTS LIST

AV-28WR2EN

MAIN PW BOARD ASS'Y (SJF-1002A-U2)

△ Symbol No.	Part No.	Part Name	Description	Local
R E S I S T O R				
R1001	QRD12CJ-474SX	C R	470k Ω 1/2W J	*
R1202	QRD14CJ-271SX	C R	270 Ω 1/4W J	*
R1204	QRG019J-101S	OM R	100 Ω 1W J	*
R1232	QRG019J-101S	OM R	100 Ω 1W J	*
△ R1252	QRZ0054-470M	F R	47 Ω 1/4W J	*
R1687-88	QRD12CJ-4R7SX	C R	4.7 Ω 1/2W J	*
R1701	QRB049J-472	NETW.R	4.7k Ω	*
R1702	QRB069J-103	NETW.R	10k Ω	*
R1791-92	QRB049J-103	NETW.R	10k Ω	*
R1796	QRB079J-103	NETW.R	10k Ω	*
R1901	QRG029J-470A	OM R	47 Ω 2W J	*
R1902	QRG019J-181S	OM R	180 Ω 1W J	*
R1962	QRG019J-121S	OM R	120 Ω 1W J	*
C A P A C I T O R				
C1001	QETN1HM-226Z	E CAP.	22 μ F 50V M	*
C1003	QETN1CM-108Z	E CAP.	1000 μ F 16V M	*
C1004	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1005	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1006	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C1007-08	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1101	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C1102	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1103	QFLC1HJ-104MZ	M CAP.	0.1 μ F 50V J	*
C1104	QFLC1HJ-823MZ	M CAP.	0.082 μ F 50V J	*
C1105	QETN1HM-474Z	E CAP.	0.47 μ F 50V M	*
C1109	QETN1CM-477Z	E CAP.	470 μ F 16V M	*
C1110	QCT25CH-120Z	C CAP.	12 p F 50V J	*
C1111	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1113-15	QFLC1HJ-104MZ	M CAP.	0.1 μ F 50V J	*
C1116	QETN1HM-225Z	E CAP.	2.2 μ F 50V M	*
C1117	QFLC1HJ-103MZ	M CAP.	0.01 μ F 50V J	*
C1118-20	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C1121	QETN1HM-475Z	E CAP.	4.7 μ F 50V M	*
C1122	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C1124-25	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1126	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C1128	QCT25CH-390Z	C CAP.	39 p F 50V J	*
C1161	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C1164	QCT25CH-820Z	C CAP.	82 p F 50V J	*
C1165-66	QCT25CH-470Z	C CAP.	47 p F 50V J	*
C1167	QCT25CH-180Z	C CAP.	18 p F 50V J	*
C1201	QETN1CM-227Z	E CAP.	220 μ F 16V M	*
C1202	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C1203	QEN61HM-106Z	BP E CAP.	10 μ F 50V M	*
C1204-05	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C1206-07	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1208	QETN1CM-477Z	E CAP.	470 μ F 16V M	*
C1209	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C1211-12	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C1215-16	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C1217-18	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1221	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C1222	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1223	QETN1CM-477Z	E CAP.	470 μ F 16V M	*
C1224	QEN61CM-106Z	BP E CAP.	10 μ F 16V M	*
C1226	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1230-31	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1401	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C1451	QETN1HM-106Z	E CAP.	10 μ F 50V M	*

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△ Symbol No.	Part No.	Part Name	Description	Local
C A P A C I T O R				
C1452	QCT25CH-820Z	C CAP.	82 p F 50V J	*
C1453	QCT25CH-180Z	C CAP.	18 p F 50V J	*
C1454	QCT25CH-221Z	C CAP.	220 p F 50V J	*
C1455	QCT25CH-390Z	C CAP.	39 p F 50V J	*
C1456	QAT3110-300A	TRIM.CAP.	30 p F 100V	*
C1457	QCT25CH-5R0Z	C CAP.	5 p F 50V J	*
C1501	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C1507	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C1601-02	QCT25CH-2R0Z	C CAP.	2 p F 50V J	*
C1605-06	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1607-08	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1609-10	QEN61HM-105Z	BP E CAP.	1 μ F 50V M	*
C1613	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1614-15	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1616	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1617-18	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1635-36	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C1637	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C1638-39	QEN61HM-105Z	BP E CAP.	1 μ F 50V M	*
C1641	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C1643-44	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C1645	QETN1HM-226Z	E CAP.	22 μ F 50V M	*
C1646	QETN1AM-477Z	E CAP.	470 μ F 10V M	*
C1649-50	QETN1HM-225Z	E CAP.	2.2 μ F 50V M	*
C1651-54	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1655	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C1656	QETN1HM-226Z	E CAP.	22 μ F 50V M	*
C1657	QETN1AM-477Z	E CAP.	470 μ F 10V M	*
C1660-61	QETN1HM-225Z	E CAP.	2.2 μ F 50V M	*
C1662-65	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1666	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C1668	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1669	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C1671	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1672	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C1674-75	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1676	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C1678	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1679	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C1680	QFLC1HJ-393MZ	M CAP.	0.039 μ F 50V J	*
C1683	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C1684	QFLC1HJ-393MZ	M CAP.	0.039 μ F 50V J	*
C1685	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C1688	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C1689-90	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C1691-94	QFV71HJ-224MZ	TF CAP.	0.22 μ F 50V J	*
C1695	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1696-97	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1698-99	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C1702	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1703	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1704	QETN1AM-227Z	E CAP.	220 μ F 10V M	*
C1705	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1706	QFLC1HJ-683MZ	M CAP.	0.068 μ F 50V J	*
C1707	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C1709	QCT25CH-180Z	C CAP.	18 p F 50V J	*
C1711	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1712	QETN1AM-107Z	E CAP.	100 μ F 10V M	*
C1715	QFLC1HJ-333MZ	M CAP.	0.033 μ F 50V J	*
C1716	QFLC1HJ-104MZ	M CAP.	0.1 μ F 50V J	*
C1718	QCT25CH-180Z	C CAP.	18 p F 50V J	*
C1719	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1723	QEN61HM-105Z	BP E CAP.	1 μ F 50V M	*

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△ Symbol No.	Part No.	Part Name	Description	Local
CAPACITOR				
C1761	QETN1HM-106Z	E CAP.	1 μ F 50V M	*
C1764	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C1765	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1781	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1782	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1807	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C1809	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1811	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1812	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C1813	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1816	QETN1HM-226Z	E CAP.	22 μ F 50V M	*
C1818	QFLC1HJ-223MZ	M CAP.	0.022 μ F 50V J	*
C1820-21	QCT25CH-150Z	C CAP.	15 p F 50V J	*
C1822	QFV71HJ-104MZ	TF CAP.	0.1 μ F 50V J	*
C1826	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1827	QETN0JM-477Z	E CAP.	470 μ F 6.3V M	*
C1828	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1829	QFLC1HJ-104MZ	M CAP.	0.1 μ F 50V J	*
C1861-65	QETN1HM-106Z	E CAP.	1 μ F 50V M	*
C1866	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C1901	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C1902	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1903	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C1904-05	QETM1EM-228	E CAP.	2200 μ F 25V M	*
C1906	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C1907-08	QFV71HJ-104MZ	TF CAP.	0.1 μ F 50V J	*
COIL				
L1001	CELP026-270Z	PEAKING COIL	27 μ H	*
L1002-04	CELP026-8R2Z	PEAKING COIL	8.2 μ H	*
L1005	CELP026-5R6Z	PEAKING COIL	5.6 μ H	*
L1101-02	CELP026-4R7Z	PEAKING COIL	4.7 μ H	*
L1103	CELP026-330Z	PEAKING COIL	33 μ H	*
L1104	CELP026-4R7Z	PEAKING COIL	4.7 μ H	*
L1161	CELP027-180Z	PEAKING COIL	18 μ H	*
L1162	CELP027-220Z	PEAKING COIL	22 μ H	*
L1601-02	CELC005-2R5J7	CHOKE COIL		*
L1603	CELP026-100Z	PEAKING COIL	10 μ H	*
L1701-02	CELP026-4R7Z	PEAKING COIL	4.7 μ H	*
L1801	CELP026-3R3Z	PEAKING COIL	3.3 μ H	*
L1802	CELP026-4R7Z	PEAKING COIL	4.7 μ H	*
DIODE				
D1101	1SS133-T2	SI.DIODE		*
D1201	MTZJ4.7(A)-T2	ZENER DIODE		*
D1202-03	1SS133-T2	SI.DIODE		*
D1204	MTZJ10(A)-T2	ZENER DIODE		*
D1453	1SS133-T2	SI.DIODE		*
D1501-02	1SS133-T2	SI.DIODE		*
D1602-03	MTZJ15(A)-T2	ZENER DIODE		*
D1604	MTZJ6.2(B)-T2	ZENER DIODE		*
D1605-06	MTZJ15(A)-T2	ZENER DIODE		*
D1607	1SS133-T2	SI.DIODE		*
D1608	MTZJ6.2(B)-T2	ZENER DIODE		*
D1609	1SS133-T2	SI.DIODE		*
D1610	MTZJ6.2(B)-T2	ZENER DIODE		*
D1611-14	1SS133-T2	SI.DIODE		*
D1615-17	MTZJ5.6(B)-T2	ZENER DIODE		*
D1618-21	BYW95B-20	SI.DIODE		*
D1701-02	MA700-T2	SI.DIODE		*
D1711	1SS133-T2	SI.DIODE		*
D1714	1SS133-T2	SI.DIODE		*
D1762	1SS133-T2	SI.DIODE		*
D1764-65	1SS133-T2	SI.DIODE		*

△ Symbol No.	Part No.	Part Name	Description	Local
D I O D E				
D1801-02	1SS133-T2	SI. DIODE		*
D1862-63	MTZJ15(B)-T2	ZENER DIODE		*
D1901	RD8.2ES(B2)-T2	ZENER DIODE		
D1964	MTZJ5.1(B)-T2	ZENER DIODE		*
T R A N S I S T O R				
Q1101	2PA1015(YG)-T	SI. TRANSISTOR		*
Q1102	2PC1815(YG)-T	SI. TRANSISTOR		*
Q1103	DTC124ESA-T	DIGI. TRANSISTOR		
Q1163	2PC1815(YG)-T	SI. TRANSISTOR		*
Q1201-02	2PC1815(YG)-T	SI. TRANSISTOR		*
Q1203	2PA1015(YG)-T	SI. TRANSISTOR		*
Q1204-05	DTC323TS-T	DIGI. TRANSISTOR		*
Q1206	2PC1815(YG)-T	SI. TRANSISTOR		*
Q1207	2PA1015(YG)-T	SI. TRANSISTOR		*
Q1208-09	2PC1815(YG)-T	SI. TRANSISTOR		*
Q1210-11	DTC323TS-T	DIGI. TRANSISTOR		*
Q1212	2PC1815(YG)-T	SI. TRANSISTOR		*
Q1451	DTC124ES-T	DIGI. TRANSISTOR		*
Q1452	2PC1815(YG)-T	SI. TRANSISTOR		*
Q1501	2PC1815(YG)-T	SI. TRANSISTOR		*
Q1502	2PA1015(YG)-T	SI. TRANSISTOR		*
Q1603	DTC144ES-T	DIGI. TRANSISTOR		*
Q1604-05	DTC323TS-T	DIGI. TRANSISTOR		*
Q1606-08	2PA1015(YG)-T	SI. TRANSISTOR		*
Q1609-10	DTC323TS-T	DIGI. TRANSISTOR		*
Q1611	DTC144ES-T	DIGI. TRANSISTOR		*
Q1612-13	2PC1815(YG)-T	SI. TRANSISTOR		*
Q1701-02	2PC1815(YG)-T	SI. TRANSISTOR		*
Q1703	DTC144ESA-T	DIGI. TRANSISTOR		
Q1761	DTC144ESA-T	DIGI. TRANSISTOR		
Q1762	2PA1015(YG)-T	SI. TRANSISTOR		*
Q1763	DTC144ES-T	DIGI. TRANSISTOR		*
Q1764	DTC323TS-T	DIGI. TRANSISTOR		*
Q1765	2PA1015(YG)-T	SI. TRANSISTOR		*
Q1766	DTC323TS-T	DIGI. TRANSISTOR		*
Q1771	2PA1015(YG)-T	SI. TRANSISTOR		*
Q1801	2PA1015(YG)-T	SI. TRANSISTOR		*
Q1802	DTC124ES-T	DIGI. TRANSISTOR		*
Q1806-07	2PC1815(YG)-T	SI. TRANSISTOR		*
Q1861	DTC144ES-T	DIGI. TRANSISTOR		*
I C				
IC1101	TB1227AN	I.C. (DIGI-OTHER)		
IC1201	TEA6416	I.C. (MONO-ANA)		*
IC1451	MC14538BCP	I.C. (DIGI-MOS)		
IC1601	MSP3410B-PP-F7	I.C. (DIGI-OTHER)		*
IC1602	BA4558	I.C. (MONO-ANA)		*
IC1604-05	TDA7315	I.C. (DIGI-OTHER)		
IC1606	TC4052BP	I.C. (DIGI-MOS)		*
IC1607-10	BA4558	I.C. (MONO-ANA)		*
IC1611	TDA7265	I C		
IC1701	M37271MF-213SP	I.C. (MICRO-COMP)		
IC1702	L78LR05E-MA	I.C. (MONO-ANA)		*
IC1703	AT24C1628WR2EN	I.C.	(SERVICE)	
IC1704	JLC1562BN	I.C. (DIGI-MOS)		
IC1705	AT24C16-10PC	I.C. (EP-ROM)		*
IC1781	JLC1562BN	I.C. (DIGI-MOS)		
IC1801	TC4053BP	I.C. (DIGI-MOS)		*
IC1802	CF70206	I.C. (DIGI-MOS)		*
IC1803	CF72417	I.C. (DIGI-MOS)		*
IC1861	TC4052BP	I.C. (DIGI-MOS)		*
IC1901	AN78L05-Y	I.C. (MONO-ANA)		*

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△ Symbol No.	Part No.	Part Name	Description	Local
O T H E R S				
CN1001	CHC108N-25T-AE	FFC CONNECTOR		*
CN1002-03	CHB302W-20R-AE	20P DINM RECEPTA		*
CN1007	CH42151-012RT	JL RECEPTACLE		
CN1008	CHA401N-15P-J	HQF CONNECTOR		*
CN1009	CHA401B-25P-J	HQF PLUG		*
EF1601-02	CE42142-103Z	EMI FILTER		
K1001-03	CE41433-001Z	BEADS CORE		*
TH1451-52	ERT-D2ZHL503S	N.THERMISTOR		
TU1001	CEEK481-B02	TUNER		*
X1101	QAX0305-001Z	CRYSTAL		*
X1601	CE42546-001	CRYSTAL		*
X1701	CST8.00MTW	CER.RESONATOR		*
X1801	CE41257-001Z	CRYSTAL		*
-----	-----	AUTO ASPECT MODULE PWB (As follows)		

AUTO ASPECT MODULE PW BOARD ASS'Y (SJF0W001A(U))

This PW Board Ass'y is included in the above MAIN PW Board Ass'y.

△ Symbol No.	Part No.	Part Name	Description	Local
MD001	SJF0W001A(U)	AUTO ASPECT MODULE PWB		

POWER/DEF PW BOARD ASS'Y (SJF-2002A-U2)

△ Symbol No.	Part No.	Part Name	Description	Local
R E S I S T O R				
R2407	QRV141F-3921AY	MF R	3.92k Ω 1/4W F	
R2414	QRX019J-2R2S	MF R	2.2 Ω 1W J	*
R2417	QRG019J-221S	OM R	220 Ω 1W J	*
△ R2466	QRD14CJ-2R2SX	C R	2.2 Ω 1/4W J	*
R2474	QRV141F-6201AY	MF R	6.2k Ω 1/4W F	*
R2481	QRV141F-1202AY	MF R	12k Ω 1/4W F	
R2482	QRV141F-6801AY	MF R	6.8k Ω 1/4W F	*
R2496	QRG039J-180A	OM R	18 Ω 3W J	*
R2510	QRG029J-182	OM R	1.8k Ω 2W J	*
R2511	QRG029J-222	OM R	2.2k Ω 2W J	*
R2522	QRG029J-822	OM R	8.2k Ω 2W J	*
R2524	QRF104J-100	UNF R	10 Ω 10W J	*
R2585	QRV141F-3011AY	MF R	3.01k Ω 1/4W F	
R2586	QRV141F-1582AY	MF R	15.8k Ω 1/4W F	*
R2901	QRF104K-3R9	UNF R	3.9 Ω 10W K	*
R2904	QRG039J-333	OM R	33k Ω 3W J	*
R2905	QRG039J-473	OM R	47k Ω 3W J	*
R2906	QRM059J-R22	MP R	0.22 Ω 5W J	*
R2951	QRF074J-102	UNF R	1k Ω 7W J	*
R2953	QRG029J-180A	OM R	18 Ω 2W J	
R2954	QRG029J-150A	OM R	15 Ω 2W J	
R2955	QRG029J-100A	OM R	10 Ω 2W J	*
R2958	QRG029J-473A	OM R	47k Ω 2W J	*

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△ Symbol No.	Part No.	Part Name	Description	Local
R E S I S T O R				
R2967	QRG029J-223	OM R	22k Ω 2W J	*
△ R2991	QRZ0057-825	C R	8.2M Ω 1W J	*
C A P A C I T O R				
C2401	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C2402	QFLC1HJ-152MZ	M CAP.	1500 p F 50V J	*
C2403	QETB1VM-108	E CAP.	1000 μ F 35V M	*
C2404	QETN1VM-107Z	E CAP.	100 μ F 35V M	*
C2405	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C2407-08	QFLC1HJ-104MZ	M CAP.	0.1 μ F 50V J	*
C2409	QFLC2AJ-393MZ	M CAP.	0.039 μ F 100V J	*
C2410	QFLC2AJ-563MZ	M CAP.	0.056 μ F 100V J	*
C2413	QFVC1HJ-154Z	TF CAP.	0.15 μ F 50V J	
C2415	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C2453	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C2462	QFP31HG-273S	PP CAP.	0.027 μ F 50V G	
C2463	QEM61EK-225MZ	E CAP.	2.2 μ F 25V K	*
C2464	QFV71HJ-184MZ	TF CAP.	0.18 μ F 50V J	*
C2465	QFV71HJ-823MZ	TF CAP.	0.082 μ F 50V J	
C2466	QETN1CM-108Z	E CAP.	1000 μ F 16V M	*
C2467	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C2468	QFLC1HJ-103MZ	M CAP.	0.01 μ F 50V J	*
C2469	QFLC1HJ-393MZ	M CAP.	0.039 μ F 50V J	*
C2470	QEM61HK-475MZ	E CAP.	4.7 μ F 50V K	*
C2480	QFLC1HJ-273MZ	M CAP.	0.027 μ F 50V J	*
C2481	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C2482	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C2484	QFLC1HJ-123MZ	M CAP.	0.012 μ F 50V J	*
C2485	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C2486	QETN1CM-227Z	E CAP.	220 μ F 16V M	*
C2510	QEHC2CM-105MZ	E CAP.	1 μ F 160V M	*
△ C2521	QFZ0122-242S	MPP CAP.	2400 p F 1.8kVH $\pm 3\%$	
△ C2522	QFZ0117-1202S	MPP CAP.	0.012 μ F 1.4kVH $\pm 2.5\%$	*
C2523	QFP32GJ-273M	PP CAP.	0.027 μ F 400V J	*
C2524-25	QFZ0119-624S	MPP CAP.	0.62 μ F 200V $\pm 3\%$	*
C2526	QETN2EM-475Z	E CAP.	4.7 μ F 250V M	*
C2528	QETM2CM-227	E CAP.	220 μ F 160V M	*
C2529	QFZ0128-393S	MPP CAP.	0.039 μ F 400V $\pm 3\%$	
△ C2531	QFZ0119-224S	MPP CAP.	0.22 μ F 200V $\pm 3\%$	*
C2532	QFZ0119-354S	MPP CAP.	0.35 μ F 200V $\pm 3\%$	*
C2536	QFLC1HJ-122MZ	M CAP.	1200 p F 50V J	*
C2553-54	QETN1EM-108Z	E CAP.	1000 μ F 25V M	*
C2555	QETN2EM-106Z	E CAP.	10 μ F 250V M	*
C2556	QFV71HJ-104MZ	TF CAP.	0.1 μ F 50V J	
C2571	QETC0JM-107Z	E CAP.	100 μ F 6.3V M	*
C2572	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C2581	QETN1AM-227Z	E CAP.	220 μ F 10V M	*
C2582	QETN2AM-106Z	E CAP.	10 μ F 100V M	*
C2583	QEN61HM-105Z	BP E CAP.	1 μ F 50V M	*
△ C2902	QCZ9034-472A	C CAP.	4700 p FAC400V P	*
△ C2903	QCZ9034-472A	C CAP.	4700 p FAC400V P	*
△ C2904	QCZ9034-472A	C CAP.	4700 p FAC400V P	*
C2905	QEZ0167-227M	E CAP.	220 μ F 385V M	*
C2908	QCZ0122-391A	C CAP.	390 p F 2000V K	*
C2910	QCZ0122-151A	C CAP.	150 p F 2000V K	*
C2911	QCZ0122-221A	C CAP.	220 p F 2000V K	*
C2915	QETN1EM-107Z	E CAP.	100 μ F 25V M	*
C2917	QFLC1HJ-102MZ	M CAP.	1000 p F 50V J	*
C2918	QFLC1HJ-104MZ	M CAP.	0.1 μ F 50V J	*
C2920	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C2921	QFLC1HJ-392MZ	M CAP.	3900 p F 50V J	*
△ C2934	QFZ9040-473N	MM CAP.	0.047 μ FAC275V M	*
C2951	QCZ0122-221A	C CAP.	220 p F 2000V K	*

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△ Symbol No.	Part No.	Part Name	Description	Local
C A P A C I T O R				
C2952-53	QCZ0132-102AZ	C CAP.	1000 p F 500V K	*
C2958	QEZ0203-227	E CAP.	220 μ F 160V M	
C2959	QEZ0125-228R	E CAP.	2200 μ F 25V M	
C2960	QEZ0106-128R	E CAP.	1200 μ F 10V M	
C2961	QEZ0125-228R	E CAP.	2200 μ F 25V M	
C2962	QEH81VM-108M	E CAP.	1000 μ F 35V M	*
C2964-66	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C2967	QETN1AM-227Z	E CAP.	220 μ F 10V M	*
C2968	QEH81AM-108MZ	E CAP.	1000 μ F 10V M	*
C2969	QETN1CM-227Z	E CAP.	220 μ F 16V M	*
C2971-72	QFV71HJ-104MZ	TF CAP.	0.1 μ F 50V J	
C2974	QEH81VM-108M	E CAP.	1000 μ F 35V M	*
C2976	QETN1CM-227Z	E CAP.	220 μ F 16V M	*
C2981	QETN1AM-227Z	E CAP.	220 μ F 10V M	*
△ C2992	QCZ9041-471A	C CAP.	470 p FAC400V K	*
△ C2993	QCZ9041-332A	C CAP.	3300 p FAC400V M	*
T R A N S F O R M E R				
T2501	CE42034-002	H.DRIVE TRANSF.		*
T2521	CE42549-001J1	BRIGE COIL		*
△ T2901	CETS087-001J4	SW TRANSF.		*
C O I L				
L2461	CE42567-002J1	INJECTION COIL		*
L2521	CELL011-002J1	LINEARITY COIL		*
L2522	CE42693-001J1	CHOKE COIL		*
L2551	CELC901-086J6	HEATER CHOKE		*
L2901	CELC057-2R7Z	CHOKE COIL		*
L2931	CELC055-100	CHOKE COIL		*
L2951	CELC901-046J6	HEATER CHOKE		*
L2952-53	CELC057-3R3Z	CHOKE COIL		*
D I O D E				
D2402	1N4003-T2	SI.DIODE		*
D2404	MTZJ9.1(C)-T2	ZENER DIODE		*
D2405	1SS133-T2	SI.DIODE		*
D2406	MTZJ22(C)-T2	ZENER DIODE		*
D2407	1SS133-T2	SI.DIODE		*
D2461	MTZJ3.9(B)-T2	ZENER DIODE		*
D2462	MTZJ12(C)-T2	ZENER DIODE		*
D2465-66	MTZJ22(C)-T2	ZENER DIODE		*
D2521	BY228-20	SI.DIODE		*
D2522	BYW95C-20	SI.DIODE		*
D2523	BYD33G-T3	SI.DIODE		*
D2524	BY228-20	SI.DIODE		*
D2551-52	BYW95B-20	SI.DIODE		*
D2553-55	BYD33G-T3	SI.DIODE		*
D2561	MTZJ39(B)-T2	ZENER DIODE		*
D2562	1SS133-T2	SI.DIODE		*
D2575	MTZJ7.5(B)-T2	ZENER DIODE		*
D2576	MTZJ15(B)-T2	ZENER DIODE		*
D2582	MA4068(N)C1-T2	ZENER DIODE		*
D2583	BYD33D-T3	SI.DIODE		*
△ D2901	D3SBA60	DIODE BRIDGE		*
D2902	BYD33M-T3	SI.DIODE		*
D2904	BYD33D-T3	SI.DIODE		*
D2951	RU4B-C1	SI.DIODE		*
D2952	BYD33M-T3	SI.DIODE		*
D2953	BYD33G-T3	SI.DIODE		*
D2954-56	BYW95B-20	SI.DIODE		*
D2957	1SS146-T2	SI.DIODE		*
D2958	MTZJ7.5(B)-T2	ZENER DIODE		*
D2960	MCR22-6	THYRISTOR		*
D2961	MTZJ15(B)-T2	ZENER DIODE		*
D2963	MTZJ33(B)-T2	ZENER DIODE		*

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△ Symbol No.	Part No.	Part Name	Description	Local
D I O D E				
D2964	BYW95B-20	SI.DIODE		*
D2965	BYD33D-T3	SI.DIODE		*
D2966	MTZJ7.5(C)-T2	ZENER DIODE		*
D2981-86	1SS133-T2	SI.DIODE		*
T R A N S I S T O R				
Q2461-65	2PC1815(YG)-T	SI.TRANSISTOR		*
Q2466	2SD1408(OY)-LB	SI.TRANSISTOR		*
Q2467	2PC1815(YG)-T	SI.TRANSISTOR		*
Q2501	BSN274	F.E.T.		*
△ Q2521	BU2508AX	POWER TRANSISTOR	H.OUT	*
Q2531-32	IRF620	F.E.T.		*
Q2533-35	DTC124ES-T	DIGI.TRANSISTOR		*
Q2536	IRF620	F.E.T.		*
Q2537	DTC124ESA-T	DIGI.TRANSISTOR		*
Q2561	2PA1015(YG)-T	SI.TRANSISTOR		*
Q2571	2SA949(Y)C1-T	SI.TRANSISTOR		*
Q2572	DTC124ESA-T	DIGI.TRANSISTOR		*
Q2573	2PC1815(YG)-T	SI.TRANSISTOR		*
Q2901	MTA4N60E	F.E.T.		*
Q2951	2PC1815(YG)-T	SI.TRANSISTOR		*
Q2952	2SC2240(GB)-T	SI.TRANSISTOR		*
Q2953	DTC124ES-T	DIGI.TRANSISTOR		*
Q2981-82	2PC1815(YG)-T	SI.TRANSISTOR		*
I C				
IC2401	LA7841	I.C.(MONO-ANA)		*
IC2461	TA8739P	I.C.(MONO-ANA)		*
IC2462	XRA15218N	I.C.(MONO-ANA)		*
IC2531-32	TLP621(B)	I.C.(PH.COUPLER)		*
IC2901	MC44604P	I.C.(MONO-ANA)		*
△ IC2902	TLP721F(D4-GR)	I.C.(PH.COUPLER)		*
IC2951	AN7812F	I.C.(MONO-ANA)		*
IC2952	AN7809F	I.C.(MONO-ANA)		*
IC2953	AN7705F	I.C.(MONO-ANA)		*
IC2954	SE135N	I.C.(HYBRID)		*
O T H E R S				
△ CP2952	ICP-N50-Y	I.C.PROTECT		*
△ CP2953	ICP-N50-Y	I.C.PROTECT		*
△ FR2551	QRZ0054-4R7M	F R	4.7 Ω 1/4W J	*
△ FR2552	QRH017J-1R0M	F R	1 Ω 1W J	*
△ FR2553	QRH017J-1R0M	F R	1 Ω 1W J	*
K2401	CE41433-001Z	BEADS CORE		*
K2521	CE41433-001Z	BEADS CORE		*
K2901-02	CE42050-001Z	CORE		*
K2951	CE41433-001Z	BEADS CORE		*
△ RY2901	CESK028-002	RELAY		*
△ TH2901	CEKP002-003	W.P.THERMISTOR		*

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CRT SOCKET PW BOARD ASS'Y (SJF-3002A-U2)

△ Symbol No.	Part No.	Part Name	Description	Local
R E S I S T O R				
R3113	QRG029J-153A	OM R	15k Ω 2W J	*
R3114	QRG029J-183A	OM R	18k Ω 2W J	*
R3115-16	QRG029J-153A	OM R	15k Ω 2W J	*
R3117	QRG029J-183A	OM R	18k Ω 2W J	*
R3118-20	QRZ0107-102Z	C R	1k Ω 1/2W K	*
R3124	QRG029J-183A	OM R	18k Ω 2W J	*
R3131	QRZ0107-474Z	C R	470k Ω 1W K	*
△ R3306	QRD141J-100SY	C R	10 Ω 1/4W J	*
R3318	QRG029J-391A	OM R	390 Ω 2W J	*
C A P A C I T O R				
C3101-02	NCT03CH-271AY	CHIP CAP.	270 p F 50V J	*
C3103	NCB21HK-331AY	CHIP CAP.	330 p F 50V K	*
C3104	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C3105	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C3106	NCF21EZ-104AY	CER.CAP.-M	0.1 μ F 25V Z	*
C3113	QCZ0121-102M	C CAP.	1000 p F 3000V P	*
C3121	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C3123	QETM2EM-336	E CAP.	33 μ F 250V M	*
C3301	QETN2CM-106Z	E CAP.	10 μ F 160V M	*
C3302	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C3303	QFLC1HJ-103MZ	M CAP.	0.01 μ F 50V J	*
C3304	QETN1HM-335Z	E CAP.	3.3 μ F 50V M	*
C3305	NCT03CH-5R0AY	CHIP CAP.	5 p F 50V J	*
C3306	NCT03CH-681AY	CHIP CAP.	680 p F 50V J	*
C3308	NCT03CH-221AY	CHIP CAP.	220 p F 50V J	*
C3310	QETN2CM-106Z	E CAP.	10 μ F 160V M	*
C3311	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C3312	QETN1AM-107Z	E CAP.	100 μ F 10V M	*
C3313	QETN1CM-337Z	E CAP.	330 μ F 16V M	*
C O I L				
L3101-03	CELP026-181Z	PEAKING COIL	180 μ H	*
D I O D E				
D3121	DAN202K-X	DIODE ARRAY		*
D3123	MA3068(M)-X	ZENER DIODE		*
D3125-26	DAN202K-X	DIODE ARRAY		*
D3301-02	RH1S-T3	SI.DIODE		*
T R A N S I S T O R				
Q3101-03	2PC1815(YG)-T	SI.TRANSISTOR		*
Q3104-06	2SC4544-C1	SI.TRANSISTOR		*
Q3153	2PC1815(YG)-T	SI.TRANSISTOR		*
Q3154	2PA1015(YG)-T	SI.TRANSISTOR		*
Q3301-02	2PC1815(YG)-T	SI.TRANSISTOR		*
Q3303	2PA1015(YG)-T	SI.TRANSISTOR		*
Q3304	2SA1837	SI.TRANSISTOR		*
Q3305	2SC4793	SI.TRANSISTOR		*
O T H E R S				
△ FR3319	QRH017J-561M	F R	560 Ω 1W J	*
K3301-04	CE41492-001Z	CHOKE COIL		*
△ SK3001	CE42535-001J1	C.R.T.SOCKET		*

FRONT CONTROL PW BOARD ASS'Y (SJF-8002A-U2)

△ Symbol No.	Part No.	Part Name	Description	Local
R E S I S T O R				
△ R8905	QRZ0111-474	C R	470 K Ω 1/2W K	*
C A P A C I T O R				
C8001-02	NCB21HK-222AY	CHIP CAP.	2200 p F 50V K	*
C8003	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C8004	NCF21EZ-104AY	CER.CAP.-M	0.1 μ F 25V Z	*
C8005	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C8010-11	NCB21HK-472AY	CHIP CAP.	4700 p F 50V K	*
C8012	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
△ C8901	QFZ9040-474N	MF CAP.	0.47 μ F AC275V M	*
C O I L				
L8001	CE41832-001	LEAD CORE		*
L8002-03	CELP017-5R6Y	PEAKING COIL	5.6 μ H	*
L8010-11	CELP017-270Y	PEAKING COIL	27 μ H	*
L8012	CE41832-001	LEAD CORE		*
D I O D E				
D8007	P1201	C.D.S.		*
D8008	DAN202K-X	DIODE ARRAY		*
D8009	SLR-342MG-T16	L.E.D.(GRN)		*
D8010	SPR-39MVWF	L.E.D.		*
D8012	SLR-342DU-T16	L.E.D.(ORG)		*
D8013	MA3068(M)-X	ZENER DIODE		*
D8014	SLR-342YY-T16	L.E.D.(YLW)		*
D8015	MA152WK-X	SI.DIODE		*
T R A N S I S T O R				
Q8001	2PC1815(YG)-T	SI.TRANSISTOR		*
Q8002-03	DTA144TSA-T	DIGI.TRANSISTOR		*
Q8005-07	2PA1015(YG)-T	SI.TRANSISTOR		*
I C				
IC8001	GP1U281Q	IFR DETECT UNIT		*
O T H E R S				
	CM36548-001-E	L.E.D.HOLDER		*
	CM35921-A04-H	CDS HOLDER		*
CN8001	CHC108N-25T-AE	FFC CONNECTOR		*
△ F8901	QMF5102-3R15J1	FUSE	3.15 A	*
J8001	QMS3004-C01	HEADPHONE JACK		*
J8002	CEMN087-001	PIN JACK		*
△ LF8901	CELF012-001J7	LINE FILTER		*
S8001	QSP1A11-C18Z	PUSH SWITCH	INSTALL	*
S8002	QSP1A11-C18Z	PUSH SWITCH	V(DOWN)	*
S8003	QSP1A11-C18Z	PUSH SWITCH	V(UP)	*
△ S8901	QSP4K21-C01	PUSH SWITCH	MAIN POWER	*

DOLBY PW BOARD ASS'Y (SJF0D001A-U2)

△ Symbol No.	Part No.	Part Name	Description	Local
C A P A C I T O R				
C0101	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C0102	NCT03CH-680AY	CHIP CAP.	68 p F 50V J	*
C0103	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C0104	NCB21HK-473AY	CHIP CAP.	0.047 μ F 50V K	*
C0105	NCB21HK-223AY	CHIP CAP.	0.022 μ F 50V K	*

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△ Symbol No.	Part No.	Part Name	Description	Local
C A P A C I T O R				
C0106	NCB21HK-102AY	CHIP CAP.	1000 p F 50V K	*
C0107	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C0108	NCB21HK-473AY	CHIP CAP.	0.047 μ F 50V K	*
C0109	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C0110	NCT03CH-680AY	CHIP CAP.	68 p F 50V J	*
C0111	NCB21HK-473AY	CHIP CAP.	0.047 μ F 50V K	*
C0112-13	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C0115	NCB21HK-473AY	CHIP CAP.	0.047 μ F 50V K	*
C0116-25	NCB21HK-102AY	CHIP CAP.	1000 p F 50V K	*
C0126	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C0127	NCT03CH-220AY	CHIP CAP.	22 p F 50V J	*
C0128	NCT03CH-680AY	CHIP CAP.	68 p F 50V J	*
C0129	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C0130	NCB21HK-102AY	CHIP CAP.	1000 p F 50V K	*
C0131	NCF21CZ-105AY	CER.CAP.-M	1 μ F 16V Z	*
C0132	NCB21HK-102AY	CHIP CAP.	1000 p F 50V K	*
C0133	NCF21CZ-105AY	CER.CAP.-M	1 μ F 16V Z	*
C0134	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C0136	NCB21HK-102AY	CHIP CAP.	1000 p F 50V K	*
C0136	NCF21CZ-105AY	CER.CAP.-M	1 μ F 16V Z	*
C0137-38	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C0139	NCB21HK-102AY	CHIP CAP.	1000 p F 50V K	*
C0140	NCF21CZ-105AY	CER.CAP.-M	1 μ F 16V Z	*
C0141	NCB21HK-102AY	CHIP CAP.	1000 p F 50V K	*
C0142	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C0143	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C0144-45	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C0146	NCF21EZ-104AY	CER.CAP.-M	0.1 μ F 25V Z	*
C0147	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C0148	NCF21EZ-104AY	CER.CAP.-M	0.1 μ F 25V Z	*
C0201	NCB21HK-103AY	CHIP CAP.	0.01 μ F 50V K	*
C0202	NCB21HK-223AY	CHIP CAP.	0.022 μ F 50V K	*
C0203	NCB21HK-182AY	CHIP CAP.	1800 p F 50V K	*
C0204	NCF21CZ-105AY	CER.CAP.-M	1 μ F 16V Z	*
C0205	NCB21HK-103AY	CHIP CAP.	0.01 μ F 50V K	*
C0206	NCB21HK-223AY	CHIP CAP.	0.022 μ F 50V K	*
C0207	NCB21HK-182AY	CHIP CAP.	1800 p F 50V K	*
C0208	NCF21CZ-105AY	CER.CAP.-M	1 μ F 16V Z	*
C0209	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C0210	NCB21HK-103AY	CHIP CAP.	0.01 μ F 50V K	*
C0211	NCB21HK-182AY	CHIP CAP.	1800 p F 50V K	*
C0212	NCF21CZ-105AY	CER.CAP.-M	1 μ F 16V Z	*
C0213	NCB21HK-103AY	CHIP CAP.	0.01 μ F 50V K	*
C0214	NCB21HK-223AY	CHIP CAP.	0.022 μ F 50V K	*
C0215	NCB21HK-182AY	CHIP CAP.	1800 p F 50V K	*
C0216	NCF21CZ-105AY	CER.CAP.-M	1 μ F 16V Z	*
C0217	NCB21HK-223AY	CHIP CAP.	0.022 μ F 50V K	*
C0218-21	NCT03CH-470AY	CHIP CAP.	47 p F 50V J	*
C O I L				
L0101-03	CE40344-4R7YL	INDUCTOR		*
D I O D E				
D0101	MA3062-X	ZENER DIODE		
D0201	MA3062(M)-X	ZENER DIODE		
I C				
IC0101	SAA7367T-X	I.C.(DIGI-MOS)		
IC0102	TMS57052BFT	I.C.(M)		
IC0103	LC32464M-80X	I.C.(D-RAM)		
IC0104-05	PCM1717E-X	I.C.(MONO-ANA)		
IC0111	BA4558F-X	I.C.(MONO-ANA)		
IC0201-02	UPC324G2-X	I.C.(MONO-ANA)		

△ Symbol No.	Part No.	Part Name	Description	Local
O T H E R S				
CN0002	CHB302W-20P-AE	20P DINM PLUG		*
EF0101-05	CE42482-103Y	EMI FILTER		
K0101-02	CE42681-001Y	BEADS CORE		
K0104-07	CE42681-001Y	BEADS CORE		
X0101	NAX0001-001X	CRYSTAL		

IF PW BOARD ASS'Y (SJF0F001A-U2)

△ Symbol No.	Part No.	Part Name	Description	Local
C A P A C I T O R				
C0030	NCB21HK-472AY	CHIP CAP.	4700 p F 50V K	*
C0040	NCT03CH-102AY	CHIP CAP.	1000 p F 50V J	*
C0041	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C0042	NCB21HK-103AY	CHIP CAP.	0.01 μ F 50V K	*
C0043	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C0044-45	NCB21HK-103AY	CHIP CAP.	0.01 μ F 50V K	*
C0047	QETN1CM-227Z	E CAP.	220 μ F 16V M	*
C0050	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C0054	NCB21HK-103AY	CHIP CAP.	0.01 μ F 50V K	*
C0055	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C0056	QETN1HM-474Z	E CAP.	0.47 μ F 50V M	*
C0057	NCT03CH-102AY	CHIP CAP.	1000 p F 50V J	*
C0058	NCB21HK-472AY	CHIP CAP.	4700 p F 50V K	*
C0062	QETN1HM-474Z	E CAP.	0.47 μ F 50V M	*
C0064	NCB21HK-472AY	CHIP CAP.	4700 p F 50V K	*
C0065	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C0069-70	NCB21HK-103AY	CHIP CAP.	0.01 μ F 50V K	*
C0071	QETN1HM-336Z	E CAP.	33 μ F 50V M	*
C0080-81	NCB21HK-472AY	CHIP CAP.	4700 p F 50V K	*
C0101	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C0104	NCT03CH-221AY	CHIP CAP.	220 p F 50V J	*
C0140	QETN1HM-335Z	E CAP.	3.3 μ F 50V M	*
C0141	NCB21HK-332AY	CHIP CAP.	3300 p F 50V K	*
C0142	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C0143	QFLC1HJ-683MZ	M CAP.	0.068 μ F 50V J	*
C0144	QETN1HM-335Z	E CAP.	3.3 μ F 50V M	*
C0145	NCB21HK-222AY	CHIP CAP.	2200 p F 50V K	*
T R A N S F O R M E R				
T0050	CELT001-307	CW TRANSF.		*
C O I L				
L0030	CE41131-2R2Y	CHIP INDUCTOR		*
L0040	CE41131-4R7Y	INDUCTOR		*
L0070	CE41131-5R6Y	INDUCTOR		*
L0103	CE41131-100Y	INDUCTOR		*
L0104	CE41131-5R6Y	INDUCTOR		*
T R A N S I S T O R				
Q0080	2SC2712(YG)-X	SI. TRANSISTOR		*
Q0101	2SC2712(YG)-X	SI. TRANSISTOR		*
Q0107	2SA1162(YG)-X	SI. TRANSISTOR		*
Q0109-10	2SC2712(YG)-X	SI. TRANSISTOR		*

AV-28WR2EN

△ Symbol No.	Part No.	Part Name	Description	Local
I C				
IC0010	TA8865BN	I.C.(MONO-ANA)		
O T H E R S				
CF0100	TPS5.5MW	CERAMIC FILTER		*
CF0140	CSB503F30-T2	CER.RESONATOR		*
CN0003	CHB302W-20P-AE	20P DINM PLUG		*
SF0010	QAX0316-001	SAW FILTER		*
SF0012	CE42606-701	SAW FILTER		

AV TERMINAL PW BOARD ASS'Y (SJF0J001A-U2)

△ Symbol No.	Part No.	Part Name	Description	Local
C A P A C I T O R				
C0103-05	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C0106	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C0107	NCB21HK-472AY	CHIP CAP.	4700 p F 50V K	*
C0108	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C0109	NCB21HK-472AY	CHIP CAP.	4700 p F 50V K	*
C0203	QFLC1HJ-103MZ	M CAP.	0.01 μ F 50V J	*
C0204-05	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C0206-07	NCB21HK-472AY	CHIP CAP.	4700 p F 50V K	*
C0301-05	NCB21HK-222AY	CHIP CAP.	2200 p F 50V K	*
C O I L				
L0101-04	CELP017-5R6Y	PEAKING COIL	5.6 μ H	*
L0106	CE41832-001	LEAD CORE		*
L0201-04	CELP017-5R6Y	PEAKING COIL	5.6 μ H	*
L0206	CE41832-001	LEAD CORE		*
L0301-05	CE40344-100YL	INDUCTOR	100 μ H	*
L0306	CE41832-001	LEAD CORE		*
O T H E R S				
CN0008	CHA401R-15R-J	HQF CONNECTOR		*
CN0009	CHA401N-25R-J	HQF CONNECTOR		*
J0001-02	CE40529-006	SCART CONNECTOR		
J0301	CEMN090-003	PIN JACK		
J0302	CEMN045-005	PIN JACK		*

PRINTED WIRING BOARD PARTS LIST

AV-28WR2EK

MAIN PW BOARD ASS'Y (SJF-1902A-U2)

△ Symbol No.	Part No.	Part Name	Description	Local
R E S I S T O R				
R1001	QRD12CJ-474SX	C R	470k Ω 1/2W J	*
R1202	QRD14CJ-271SX	C R	270 Ω 1/4W J	
R1204	QRG019J-101S	OM R	100 Ω 1W J	*
R1232	QRG019J-101S	OM R	100 Ω 1W J	*
△ R1252	QRZ0054-470M	F R	47 Ω 1/4W J	*
R1687-88	QRD12CJ-4R7SX	C R	4.7 Ω 1/2W J	*
R1701	QRB049J-472	NETW.R	4.7k Ω	*
R1702	QRB069J-103	NETW.R	10k Ω	*
R1791-92	QRB049J-103	NETW.R	10k Ω	
R1796	QRB079J-103	NETW.R	10k Ω	*
R1901	QRG029J-470A	OM R	47 Ω 2W J	*
R1902	QRG019J-181S	OM R	180 Ω 1W J	*
R1962	QRG019J-121S	OM R	120 Ω 1W J	*
C A P A C I T O R				
C1001	QETN1HM-226Z	E CAP.	22 μ F 50V M	*
C1003	QETN1CM-108Z	E CAP.	1000 μ F 16V M	*
C1004	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1005	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1006	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C1007-08	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1101	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C1102	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1103	QFLC1HJ-104MZ	M CAP.	0.1 μ F 50V J	*
C1104	QFLC1HJ-823MZ	M CAP.	0.082 μ F 50V J	*
C1105	QETN1HM-474Z	E CAP.	0.47 μ F 50V M	*
C1109	QETN1CM-477Z	E CAP.	470 μ F 16V M	*
C1110	QCT25CH-120Z	C CAP.	12 p F 50V J	*
C1111	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1113-15	QFLC1HJ-104MZ	M CAP.	0.1 μ F 50V J	*
C1116	QETN1HM-226Z	E CAP.	2.2 μ F 50V M	*
C1117	QFLC1HJ-103MZ	M CAP.	0.01 μ F 50V J	*
C1118-20	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C1121	QETN1HM-475Z	E CAP.	4.7 μ F 50V M	*
C1122	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C1124-25	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1126	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C1161	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C1164	QCT25CH-820Z	C CAP.	82 p F 50V J	*
C1165-66	QCT25CH-470Z	C CAP.	47 p F 50V J	*
C1167	QCT25CH-180Z	C CAP.	18 p F 50V J	*
C1201	QETN1CM-227Z	E CAP.	220 μ F 16V M	*
C1202	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C1203	QEN61HM-106Z	BP E CAP.	10 μ F 50V M	*
C1204-05	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C1206-07	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1208	QETN1CM-477Z	E CAP.	470 μ F 16V M	*
C1209	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C1211-12	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C1215-16	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C1217-18	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1221	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C1222	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1223	QETN1CM-477Z	E CAP.	470 μ F 16V M	*
C1224	QEN61CM-106Z	BP E CAP.	10 μ F 16V M	*
C1226	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1230-31	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1401	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C1451	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1452	QCT25CH-820Z	C CAP.	82 p F 50V J	*

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△ Symbol No.	Part No.	Part Name	Description	Local
C A P A C I T O R				
C1453	QCT25CH-180Z	C CAP.	18 p F 50V J	*
C1454	QCT25CH-221Z	C CAP.	220 p F 50V J	*
C1455	QCT25CH-390Z	C CAP.	39 p F 50V J	*
C1456	QAT3110-300A	TRIM. CAP.	30 p F 100V	
C1457	QCT25CH-5R0Z	C CAP.	5 p F 50V J	*
C1501	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C1507	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C1601-02	QCT25CH-2R0Z	C CAP.	2 p F 50V J	*
C1605-06	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1607-08	QCZO120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1609-10	QEN61HM-105Z	BP E CAP.	1 μ F 50V M	*
C1613	QCZO120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1614-15	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1616	QCZO120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1617-18	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1635-36	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C1637	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C1638-39	QEN61HM-105Z	BP E CAP.	1 μ F 50V M	*
C1641	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C1643-44	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C1645	QETN1HM-226Z	E CAP.	22 μ F 50V M	*
C1646	QETN1AM-477Z	E CAP.	470 μ F 10V M	*
C1649-50	QETN1HM-225Z	E CAP.	2.2 μ F 50V M	*
C1651-54	QCZO120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1655	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C1656	QETN1HM-226Z	E CAP.	22 μ F 50V M	*
C1657	QETN1AM-477Z	E CAP.	470 μ F 10V M	*
C1660-61	QETN1HM-225Z	E CAP.	2.2 μ F 50V M	*
C1662-65	QCZO120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1666	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C1668	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1669	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C1671	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1672	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C1674-75	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1676	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C1678	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1679	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C1680	QFLC1HJ-393MZ	M CAP.	0.039 μ F 50V J	*
C1683	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C1684	QFLC1HJ-393MZ	M CAP.	0.039 μ F 50V J	*
C1685	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C1688	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C1689-90	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C1691-94	QFV71HJ-224MZ	TF CAP.	0.22 μ F 50V J	*
C1695	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1696-97	QCZO120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1698-99	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C1702	QCZO120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1703	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1704	QETN1AM-227Z	E CAP.	220 μ F 10V M	*
C1705	QCZO120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1706	QFLC1HJ-683MZ	M CAP.	0.068 μ F 50V J	*
C1707	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C1709	QCT25CH-180Z	C CAP.	18 p F 50V J	*
C1711	QCZO120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1712	QETN1AM-107Z	E CAP.	100 μ F 10V M	*
C1715	QFLC1HJ-333MZ	M CAP.	0.033 μ F 50V J	*
C1716	QFLC1HJ-104MZ	M CAP.	0.1 μ F 50V J	*
C1718	QCT25CH-180Z	C CAP.	18 p F 50V J	*
C1719	QCZO120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1723	QEN61HM-105Z	BP E CAP.	1 μ F 50V M	*
C1761	QETN1HM-105Z	E CAP.	1 μ F 50V M	*

△ Symbol No.	Part No.	Part Name	Description	Local
CAPACITOR				
C1764	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C1765	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1781	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1782	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1807	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C1809	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1811	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1812	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C1813	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C1816	QETN1HM-226Z	E CAP.	22 μ F 50V M	*
C1818	QFLC1HJ-223MZ	M CAP.	0.022 μ F 50V J	*
C1820-21	QCT25CH-150Z	C CAP.	15 pF 50V J	*
C1822	QFV71HJ-104MZ	TF CAP.	0.1 μ F 50V J	*
C1826	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1827	QETN0JM-477Z	E CAP.	470 μ F 6.3V M	*
C1828	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1829	QFLC1HJ-104MZ	M CAP.	0.1 μ F 50V J	*
C1861-65	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C1866	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C1901	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C1902	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C1903	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C1904-05	QETM1EM-228	E CAP.	2200 μ F 25V M	*
C1906	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C1907-08	QFV71HJ-104MZ	TF CAP.	0.1 μ F 50V J	
COIL				
L1001	CELP026-270Z	PEAKING COIL	27 μ H	*
L1002-04	CELP026-8R2Z	PEAKING COIL	8.2 μ H	*
L1005	CELP026-5R6Z	PEAKING COIL	5.6 μ H	*
L1101-02	CELP026-4R7Z	PEAKING COIL	4.7 μ H	*
L1104	CELP026-4R7Z	PEAKING COIL	4.7 μ H	*
L1161	CELP027-180Z	PEAKING COIL	18 μ H	*
L1162	CELP027-220Z	PEAKING COIL	22 μ H	*
L1601-02	CELC005-2R5J7	CHOKE COIL		*
L1603	CELP026-100Z	PEAKING COIL	10 μ H	*
L1701-02	CELP026-4R7Z	PEAKING COIL	4.7 μ H	*
L1801	CELP026-3R3Z	PEAKING COIL	3.3 μ H	*
L1802	CELP026-4R7Z	PEAKING COIL	4.7 μ H	*
DIODE				
D1101	1SS133-T2	SI.DIODE		*
D1201	MTZJ4.7(A)-T2	ZENER DIODE		*
D1202-03	1SS133-T2	SI.DIODE		*
D1204	MTZJ10(A)-T2	ZENER DIODE		*
D1453	1SS133-T2	SI.DIODE		*
D1501-02	1SS133-T2	SI.DIODE		*
D1602-03	MTZJ15(A)-T2	ZENER DIODE		*
D1604	MTZJ6.2(B)-T2	ZENER DIODE		*
D1605-06	MTZJ15(A)-T2	ZENER DIODE		*
D1607	1SS133-T2	SI.DIODE		*
D1608	MTZJ6.2(B)-T2	ZENER DIODE		*
D1609	1SS133-T2	SI.DIODE		*
D1610	MTZJ6.2(B)-T2	ZENER DIODE		*
D1611-14	1SS133-T2	SI.DIODE		*
D1615-17	MTZJ5.6(B)-T2	ZENER DIODE		*
D1618-21	BYW95B-20	SI.DIODE		*
D1701-02	MA700-T2	SI.DIODE		*
D1703	MTZJ3.6(A)-T2	ZENER DIODE		*
D1711	1SS133-T2	SI.DIODE		*
D1714	1SS133-T2	SI.DIODE		*
D1762	1SS133-T2	SI.DIODE		*
D1764-65	1SS133-T2	SI.DIODE		*
D1801-02	1SS133-T2	SI.DIODE		*

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△ Symbol No.	Part No.	Part Name	Description	Local
D I O D E				
D1862-63	MTZJ15(B)-T2	ZENER DIODE		*
D1901	RD8.2ES(B2)-T2	ZENER DIODE		
D1964	MTZJ5.1(B)-T2	ZENER DIODE		*
T R A N S I S T O R				
Q1101	2PA1015(YG)-T	SI. TRANSISTOR		*
Q1102	2PC1815(YG)-T	SI. TRANSISTOR		*
Q1163	2PC1815(YG)-T	SI. TRANSISTOR		*
Q1201-02	2PC1815(YG)-T	SI. TRANSISTOR		*
Q1203	2PA1015(YG)-T	SI. TRANSISTOR		*
Q1204-05	DTC323TS-T	DIGI. TRANSISTOR		*
Q1206	2PC1815(YG)-T	SI. TRANSISTOR		*
Q1207	2PA1015(YG)-T	SI. TRANSISTOR		*
Q1208-09	2PC1815(YG)-T	SI. TRANSISTOR		*
Q1210-11	DTC323TS-T	DIGI. TRANSISTOR		*
Q1212	2PC1815(YG)-T	SI. TRANSISTOR		*
Q1451	DTC124ES-T	DIGI. TRANSISTOR		*
Q1452	2PC1815(YG)-T	SI. TRANSISTOR		*
Q1501	2PC1815(YG)-T	SI. TRANSISTOR		*
Q1502	2PA1015(YG)-T	SI. TRANSISTOR		*
Q1603	DTC144ES-T	DIGI. TRANSISTOR		*
Q1604-05	DTC323TS-T	DIGI. TRANSISTOR		*
Q1606-08	2PA1015(YG)-T	SI. TRANSISTOR		*
Q1609-10	DTC323TS-T	DIGI. TRANSISTOR		*
Q1611	DTC144ES-T	DIGI. TRANSISTOR		*
Q1612-13	2PC1815(YG)-T	SI. TRANSISTOR		*
Q1701-02	2PC1815(YG)-T	SI. TRANSISTOR		*
Q1703	DTC144ESA-T	DIGI. TRANSISTOR		
Q1761	DTC144ESA-T	DIGI. TRANSISTOR		
Q1762	2PA1015(YG)-T	SI. TRANSISTOR		*
Q1763	DTC144ES-T	DIGI. TRANSISTOR		*
Q1764	DTC323TS-T	DIGI. TRANSISTOR		*
Q1765	2PA1015(YG)-T	SI. TRANSISTOR		*
Q1766	DTC323TS-T	DIGI. TRANSISTOR		*
Q1771	2PA1015(YG)-T	SI. TRANSISTOR		*
Q1801	2PA1015(YG)-T	SI. TRANSISTOR		*
Q1802	DTC124ES-T	DIGI. TRANSISTOR		*
Q1806-07	2PC1815(YG)-T	SI. TRANSISTOR		*
Q1861	DTC144ES-T	DIGI. TRANSISTOR		*
I C				
IC1101	TB1227AN	I.C.(DIGI-OTHER)		
IC1201	TEA6416	I.C.(MONO-ANA)		*
IC1451	MC14538BCP	I.C.(DIGI-MOS)		
IC1601	MSP3410B-PP-F7	I.C.(DIGI-OTHER)		*
IC1602	BA4558	I.C.(MONO-ANA)		*
IC1604-05	TDA7315	I.C.(DIGI-OTHER)		
IC1606	TC4052BP	I.C.(DIGI-MOS)		*
IC1607-10	BA4558	I.C.(MONO-ANA)		*
IC1611	TDA7265	I C		
IC1701	M37271MF-213SP	I.C.(MICRO-COMP)		
IC1702	L78LR05E-MA	I.C.(MONO-ANA)		*
IC1703	AT24C1628WR2EK	I.C.	(SERVICE)	
IC1704	JLC1562BN	I.C.(DIGI-MOS)		
IC1705	AT24C16-10PC	I.C.(EP-ROM)		*
IC1781	JLC1562BN	I.C.(DIGI-MOS)		
IC1801	TC4053BP	I.C.(DIGI-MOS)		*
IC1802	CF70206	I.C.(DIGI-MOS)		*
IC1803	CF72417	I.C.(DIGI-MOS)		*
IC1861	TC4052BP	I.C.(DIGI-MOS)		*
IC1901	AN78L05-Y	I.C.(MONO-ANA)		*
O T H E R S				
CN1001	CHC108N-25T-AE	FFC CONNECTOR		*

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△ Symbol No.	Part No.	Part Name	Description	Local
O T H E R S				
CN1002-03	CHB302W-20R-AE	20P DINM RECEPTA		*
CN1007	CH42151-012RT	JL RECEPTACLE		
CN1008	CHA401N-15P-J	HQF CONNECTOR		*
CN1009	CHA401B-25P-J	HQF PLUG		*
EF1601-02	CE42142-103Z	EMI FILTER		
K1001-03	CE41433-001Z	BEADS CORE		*
TH1451-52	ERT-02ZHL503S	N.THERMISTOR		
TU1001	CEEK380-B01	TUNER		*
X1101	QAX0305-001Z	CRYSTAL		*
X1601	CE42546-001	CRYSTAL		*
X1701	CST8.00MTW	CER.RESONATOR		*
X1801	CE41257-001Z	CRYSTAL		*
-----	-----	AUTO ASPECT MODULE PWB (As follows)		

AUTO ASPECT MODULE PW BOARD ASS'Y (SJF0W001A(U))

This PW Board Ass'y is included in the above MAIN PW Board Ass'y.

△ Symbol No.	Part No.	Part Name	Description	Local
MD001	SJF0W001A(U)	AUTO ASPECT MODULE PWB		

POWER DEF PW BOARD ASS'Y (SJF-2002A-U2)

△ Symbol No.	Part No.	Part Name	Description	Local
R E S I S T O R				
R2407	QRV141F-3921AY	MF R	3.92k Ω 1/4W F	
R2414	QRX019J-2R2S	MF R	2.2 Ω 1W J	*
R2417	QRG019J-221S	OM R	220 Ω 1W J	*
△ R2466	QRD14CJ-2R2SX	C R	2.2 Ω 1/4W J	*
R2474	QRV141F-6201AY	MF R	6.2k Ω 1/4W F	*
R2481	QRV141F-1202AY	MF R	12k Ω 1/4W F	
R2482	QRV141F-6801AY	MF R	6.8k Ω 1/4W F	*
R2496	QRG039J-180A	OM R	18 Ω 3W J	*
R2510	QRG029J-182	OM R	1.8k Ω 2W J	*
R2511	QRG029J-222	OM R	2.2k Ω 2W J	*
R2522	QRG029J-822	OM R	8.2k Ω 2W J	*
R2524	QRF104J-100	UNF R	10 Ω 10W J	*
R2585	QRV141F-3011AY	MF R	3.01k Ω 1/4W F	
R2586	QRV141F-1582AY	MF R	15.8k Ω 1/4W F	*
R2901	QRF104K-3R9	UNF R	3.9 Ω 10W K	*
R2904	QRG039J-333	OM R	33k Ω 3W J	*
R2905	QRG039J-473	OM R	47k Ω 3W J	*
R2906	QRM059J-R22	MP R	0.22 Ω 5W J	*
R2951	QRF074J-102	UNF R	1k Ω 7W J	*
R2953	QRG029J-180A	OM R	18 Ω 2W J	
R2954	QRG029J-150A	OM R	15 Ω 2W J	

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△ Symbol No.	Part No.	Part Name	Description	Local
R E S I S T O R				
R2955	QRG029J-100A	OM R	10 Ω 2W J	*
R2958	QRG029J-473A	OM R	47k Ω 2W J	*
R2967	QRG029J-223	OM R	22k Ω 2W J	*
△ R2991	QRZ0057-825	C R	8.2M Ω 1W J	*
C A P A C I T O R				
C2401	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C2402	QFLC1HJ-152MZ	M CAP.	1500 p F 50V J	*
C2403	QETB1VM-108	E CAP.	1000 μ F 35V M	*
C2404	QETN1VM-107Z	E CAP.	100 μ F 35V M	*
C2405	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C2407-08	QFLC1HJ-104MZ	M CAP.	0.1 μ F 50V J	*
C2409	QFLC2AJ-393MZ	M CAP.	0.039 μ F 100V J	*
C2410	QFLC2AJ-563MZ	M CAP.	0.056 μ F 100V J	*
C2413	QFVC1HJ-154Z	TF CAP.	0.15 μ F 50V J	*
C2415	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C2453	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C2462	QFP31HG-273S	PP CAP.	0.027 μ F 50V G	*
C2463	QEM61EK-225MZ	E CAP.	2.2 μ F 25V K	*
C2464	QFV71HJ-184MZ	TF CAP.	0.18 μ F 50V J	*
C2465	QFV71HJ-823MZ	TF CAP.	0.082 μ F 50V J	*
C2466	QETN1CM-108Z	E CAP.	1000 μ F 16V M	*
C2467	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C2468	QFLC1HJ-103MZ	M CAP.	0.01 μ F 50V J	*
C2469	QFLC1HJ-393MZ	M CAP.	0.039 μ F 50V J	*
C2470	QEM61HK-475MZ	E CAP.	4.7 μ F 50V K	*
C2480	QFLC1HJ-273MZ	M CAP.	0.027 μ F 50V J	*
C2481	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C2482	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C2484	QFLC1HJ-123MZ	M CAP.	0.012 μ F 50V J	*
C2485	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
C2486	QETN1CM-227Z	E CAP.	220 μ F 16V M	*
C2510	QEHC2CM-105MZ	E CAP.	1 μ F 160V M	*
△ C2521	QFZ0122-242S	MPP CAP.	2400 p F 1.8kVH ± 3%	*
△ C2522	QFZ0117-1202S	MPP CAP.	0.012 μ F 1.4kVH ± 2.5%	*
C2523	QFP32GJ-273M	PP CAP.	0.027 μ F 400V J	*
C2524-25	QFZ0119-624S	MPP CAP.	0.62 μ F 200V ± 3%	*
C2526	QETN2EM-475Z	E CAP.	4.7 μ F 250V M	*
C2528	QETM2CM-227	E CAP.	220 μ F 160V M	*
C2529	QFZ0128-393S	MPP CAP.	0.039 μ F 400V ± 3%	*
△ C2531	QFZ0119-224S	MPP CAP.	0.22 μ F 200V ± 3%	*
C2532	QFZ0119-354S	MPP CAP.	0.35 μ F 200V ± 3%	*
C2536	QFLC1HJ-122MZ	M CAP.	1200 p F 50V J	*
C2553-54	QETN1EM-108Z	E CAP.	1000 μ F 25V M	*
C2555	QETN2EM-106Z	E CAP.	10 μ F 250V M	*
C2556	QFV71HJ-104MZ	TF CAP.	0.1 μ F 50V J	*
C2571	QETC0JM-107Z	E CAP.	100 μ F 6.3V M	*
C2572	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C2581	QETN1AM-227Z	E CAP.	220 μ F 10V M	*
C2582	QETN2AM-106Z	E CAP.	10 μ F 100V M	*
C2583	QEN61HM-105Z	BP E CAP.	1 μ F 50V M	*
△ C2902	QCZ9034-472A	C CAP.	4700 p FAC400V P	*
△ C2903	QCZ9034-472A	C CAP.	4700 p FAC400V P	*
△ C2904	QCZ9034-472A	C CAP.	4700 p FAC400V P	*
C2905	QEZ0167-227M	E CAP.	220 μ F 385V M	*
C2908	QCZ0122-391A	C CAP.	390 p F 2000V K	*
C2910	QCZ0122-151A	C CAP.	150 p F 2000V K	*
C2911	QCZ0122-221A	C CAP.	220 p F 2000V K	*
C2915	QETN1EM-107Z	E CAP.	100 μ F 25V M	*
C2917	QFLC1HJ-102MZ	M CAP.	1000 p F 50V J	*
C2918	QFLC1HJ-104MZ	M CAP.	0.1 μ F 50V J	*
C2920	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C2921	QFLC1HJ-392MZ	M CAP.	3900 p F 50V J	*

△ Symbol No.	Part No.	Part Name	Description	Local
C A P A C I T O R				
△ C2934	QFZ9040-473N	MM CAP.	0.047 μ F AC275V	M *
C2951	QCZ0122-221A	C CAP.	220 p F 2000V	K *
C2952-53	QCZ0132-102AZ	C CAP.	1000 p F 500V	K *
C2958	QEZO203-227	E CAP.	220 μ F 160V	M
C2959	QEZO125-228R	E CAP.	2200 μ F 25V	M
C2960	QEZO106-128R	E CAP.	1200 μ F 10V	M
C2961	QEZO125-228R	E CAP.	2200 μ F 25V	M
C2962	QEHBM-108M	E CAP.	1000 μ F 35V	M *
C2964-66	QCZ0120-104MZ	C CAP.	0.1 μ F 25V	Z *
C2967	QETN1AM-227Z	E CAP.	220 μ F 10V	M *
C2968	QEHCM-108MZ	E CAP.	1000 μ F 10V	M *
C2969	QETN1CM-227Z	E CAP.	220 μ F 16V	M *
C2971-72	QFV71HJ-104MZ	TF CAP.	0.1 μ F 50V	J
C2974	QEHBM-108M	E CAP.	1000 μ F 35V	M *
C2976	QETN1CM-227Z	E CAP.	220 μ F 16V	M *
C2981	QETN1AM-227Z	E CAP.	220 μ F 10V	M *
△ C2992	QCZ9041-471A	C CAP.	470 p F AC400V	K *
△ C2993	QCZ9041-332A	C CAP.	3300 p F AC400V	M *
T R A N S F O R M E R				
T2501	CE42034-002	H.DRIVE TRANSF.		*
T2521	CE42549-001J1	BRIDGE COIL		*
△ T2901	CETS087-001J4	SW TRANSF.		*
C O I L				
L2461	CE42567-002J1	INJECTION COIL		*
L2521	CELL011-002J1	LINEARITY COIL		*
L2522	CE42693-001J1	CHOKE COIL		*
L2551	CELC901-086J6	HEATER CHOKE		*
L2901	CELC057-2R7Z	CHOKE COIL		*
L2931	CELC055-100	CHOKE COIL		*
L2951	CELC901-046J6	HEATER CHOKE		*
L2952-53	CELC057-3R3Z	CHOKE COIL		*
D I O D E				
D2402	1N4003-T2	SI.DIODE		*
D2404	MTZJ9.1(C)-T2	ZENER DIODE		*
D2405	1SS133-T2	SI.DIODE		*
D2406	MTZJ22(C)-T2	ZENER DIODE		*
D2407	1SS133-T2	SI.DIODE		*
D2461	MTZJ3.9(B)-T2	ZENER DIODE		*
D2462	MTZJ12(C)-T2	ZENER DIODE		*
D2465-66	MTZJ22(C)-T2	ZENER DIODE		*
D2521	BY228-20	SI.DIODE		*
D2522	BYW95C-20	SI.DIODE		*
D2523	BYD33G-T3	SI.DIODE		*
D2524	BY228-20	SI.DIODE		*
D2551-52	BYW95B-20	SI.DIODE		*
D2553-55	BYD33G-T3	SI.DIODE		*
D2561	MTZJ39(B)-T2	ZENER DIODE		*
D2562	1SS133-T2	SI.DIODE		*
D2575	MTZJ7.5(B)-T2	ZENER DIODE		*
D2576	MTZJ15(B)-T2	ZENER DIODE		*
D2582	MA4068(N)C1-T2	ZENER DIODE		*
D2583	BYD33D-T3	SI.DIODE		*
△ D2901	D3SBA60	DIODE BRIDGE		*
D2902	BYD33M-T3	SI.DIODE		*
D2904	BYD33D-T3	SI.DIODE		*
D2951	RU4B-C1	SI.DIODE		*
D2952	BYD33M-T3	SI.DIODE		*
D2953	BYD33G-T3	SI.DIODE		*
D2954-56	BYW95B-20	SI.DIODE		*
D2957	1SS146-T2	SI.DIODE		*
D2958	MTZJ7.5(B)-T2	ZENER DIODE		*
D2960	MCR22-6	THYRISTOR		*

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△ Symbol No.	Part No.	Part Name	Description	Local
D I O D E				
D2961	MTZJ15(B)-T2	ZENER DIODE		*
D2963	MTZJ33(B)-T2	ZENER DIODE		*
D2964	BYW95B-20	SI.DIODE		*
D2965	BYD33D-T3	SI.DIODE		*
D2966	MTZJ7.5(C)-T2	ZENER DIODE		*
D2981-86	1SS133-T2	SI.DIODE		*
T R A N S I S T O R				
Q2461-65	2PC1815(YG)-T	SI.TRANSISTOR		*
Q2466	2SD1408(OY)-LB	SI.TRANSISTOR		*
Q2467	2PC1815(YG)-T	SI.TRANSISTOR		*
Q2501	BSN274	F.E.T.		*
△ Q2521	BU2508AX	POWER TRANSISTOR	H.OUT	*
Q2531-32	IRF620	F.E.T.		*
Q2533-35	DTC124ES-T	DIGI.TRANSISTOR		*
Q2536	IRF620	F.E.T.		*
Q2537	DTC124ESA-T	DIGI.TRANSISTOR		*
Q2561	2PA1015(YG)-T	SI.TRANSISTOR		*
Q2571	2SA949(Y)C1-T	SI.TRANSISTOR		*
Q2572	DTC124ESA-T	DIGI.TRANSISTOR		*
Q2573	2PC1815(YG)-T	SI.TRANSISTOR		*
Q2901	MTA4N60E	F.E.T.		*
Q2951	2PC1815(YG)-T	SI.TRANSISTOR		*
Q2952	2SC2240(GB)-T	SI.TRANSISTOR		*
Q2953	DTC124ES-T	DIGI.TRANSISTOR		*
Q2981-82	2PC1815(YG)-T	SI.TRANSISTOR		*
I C				
IC2401	LA7841	I.C(MONO-ANA)		*
IC2461	TA8739P	I.C(MONO-ANA)		*
IC2462	XRA15218N	I.C(MONO-ANA)		*
IC2531-32	TLP621(B)	I.C(PH.COUPLER)		*
IC2901	MC44604P	I.C(MONO-ANA)		*
△ IC2902	TLP721F(D4-GR)	I.C(PH.COUPLER)		*
IC2951	AN7812F	I.C(MONO-ANA)		*
IC2952	AN7809F	I.C(MONO-ANA)		*
IC2953	AN7705F	I.C.(MONO-ANA)		*
IC2954	SE135N	I.C(HYBRID)		*
O T H E R S				
△ CP2952	ICP-N50-Y	I.C.PROTECT		*
△ CP2953	ICP-N50-Y	I.C.PROTECT		*
△ FR2551	QRZ0054-4R7M	F R	4.7 Ω 1/4W J	*
△ FR2552	QRH017J-1R0M	F R	1 Ω 1W J	*
△ FR2553	QRH017J-1R0M	F R	1 Ω 1W J	*
K2401	CE41433-001Z	BEADS CORE		*
K2521	CE41433-001Z	BEADS CORE		*
K2901-02	CE42050-001Z	CORE		*
K2951	CE41433-001Z	BEADS CORE		*
△ RY2901	CESK028-002	RELAY		*
△ TH2901	CEKP002-003	W.P.THERMISTOR		*

CRT SOCKET PW BOARD ASS'Y (SJF-3002A-U2)

△ Symbol No.	Part No.	Part Name	Description	Local
R E S I S T O R				
R3113	QRG029J-153A	OM R	15k Ω 2W J	*
R3114	QRG029J-183A	OM R	18k Ω 2W J	*
R3115-16	QRG029J-153A	OM R	15k Ω 2W J	*
R3117	QRG029J-183A	OM R	18k Ω 2W J	*
R3118-20	QRZ0107-102Z	C R	1k Ω 1/2W K	*
R3124	QRG029J-183A	OM R	18k Ω 2W J	*
R3131	QRZ0107-474Z	C R	470k Ω 1W K	*
△ R3306	QRD141J-100SY	C R	10 Ω 1/4W J	*
R3318	QRG029J-391A	OM R	390 Ω 2W J	*
C A P A C I T O R				
C3101-02	NCT03CH-271AY	CHIP CAP.	270 p F 50V J	*
C3103	NCB21HK-331AY	CHIP CAP.	330 p F 50V K	*
C3104	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C3105	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C3106	NCF21EZ-104AY	CER.CAP.-M	0.1 μ F 25V Z	*
C3113	QCZ0121-102M	C CAP.	1000 p F 3000V P	*
C3121	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C3123	QETM2EM-336	E CAP.	33 μ F 250V M	*
C3301	QETN2CM-106Z	E CAP.	10 μ F 160V M	*
C3302	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C3303	QFLC1HJ-103MZ	M CAP.	0.01 μ F 50V J	*
C3304	QETN1HM-335Z	E CAP.	3.3 μ F 50V M	*
C3305	NCT03CH-5R0AY	CHIP CAP.	5 p F 50V J	*
C3306	NCT03CH-681AY	CHIP CAP.	680 p F 50V J	*
C3308	NCT03CH-221AY	CHIP CAP.	220 p F 50V J	*
C3310	QETN2CM-106Z	E CAP.	10 μ F 160V M	*
C3311	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C3312	QETN1AM-107Z	E CAP.	100 μ F 10V M	*
C3313	QETN1CM-337Z	E CAP.	330 μ F 16V M	*
C O I L				
L3101-03	CELP026-181Z	PEAKING COIL	180 μ H	*
D I O D E				
D3121	DAN202K-X	DIODE ARRAY		*
D3123	MA3068(M)-X	ZENER DIODE		*
D3125-26	DAN202K-X	DIODE ARRAY		*
D3301-02	RH1S-T3	SI.DIODE		*
T R A N S I S T O R				
Q3101-03	2PC1815(YG)-T	SI.TRANSISTOR		*
Q3104-06	2SC4544-C1	SI.TRANSISTOR		*
Q3153	2PC1815(YG)-T	SI.TRANSISTOR		*
Q3154	2PA1015(YG)-T	SI.TRANSISTOR		*
Q3301-02	2PC1815(YG)-T	SI.TRANSISTOR		*
Q3303	2PA1015(YG)-T	SI.TRANSISTOR		*
Q3304	2SA1837	SI.TRANSISTOR		*
Q3305	2SC4793	SI.TRANSISTOR		*
O T H E R S				
△ FR3319	QRH017J-561M	F R	560 Ω 1W J	*
K3301-04	CE41492-001Z	CHOKE COIL		*
△ SK3001	CE42535-001J1	C.R.T.SOCKET		*

AV-28WT2EK

FRONT CONTROL PW BOARD ASS'Y (SJF-8002A-U2)

△ Symbol No.	Part No.	Part Name	Description	Local
R E S I S T O R				
△ R8905	QRZ0111-474	C R	470 K V 1/2W K	*
C A P A C I T O R				
C8001-02	NCB21HK-222AY	CHIP CAP.	2200 p F 50V K	*
C8003	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C8004	NCF21EZ-104AY	CER.CAP.-M	0.1 μ F 25V Z	*
C8005	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C8010-11	NCB21HK-472AY	CHIP CAP.	4700 p F 50V K	*
C8012	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
△ C8901	QFZ9040-474N	MF CAP.	0.47 μ FAC275V M	*
C O I L				
L8001	CE41832-001	LEAD CORE		*
L8002-03	CELP017-5R6Y	PEAKING COIL	5.6 μ H	*
L8010-11	CELP017-270Y	PEAKING COIL	27 μ H	*
L8012	CE41832-001	LEAD CORE		*
D I O D E				
D8007	P1201	C.D.S.		*
D8008	DAN202K-X	DIODE ARRAY		*
D8009	SLR-342MG-T16	L.E.D.(GRN)		*
D8010	SPR-39MVWF	L.E.D.		*
D8012	SLR-342DU-T16	L.E.D.(ORG)		*
D8013	MA3068(M)-X	ZENER DIODE		*
D8014	SLR-342YY-T16	L.E.D.(YLW)		*
D8015	MA152WK-X	SI.DIODE		*
T R A N S I S T O R				
Q8001	2PC1815(YG)-T	SI.TRANSISTOR		*
Q8002-03	DTA144TSA-T	DIGI.TRANSISTOR		*
Q8005-07	2PA1015(YG)-T	SI.TRANSISTOR		*
I C				
IC8001	GP1U281Q	IFR DETECT UNIT		
O T H E R S				
	CM36548-001-E	L.E.D.HOLDER		*
	CM35921-A04-H	CDS HOLDER		*
CN8001	CHC108N-25T-AE	FFC CONNECTOR		*
△ F8901	QMF5102-3R15J1	FUSE	3.15 A	*
J8001	QMS3004-C01	HEADPHONE JACK		*
J8002	CEMN087-001	PIN JACK		*
△ LF8901	CELF012-001J7	LINE FILTER		*
S8001	QSP1A11-C18Z	PUSH SWITCH	INSTALL	*
S8002	QSP1A11-C18Z	PUSH SWITCH	V(DOWN)	*
S8003	QSP1A11-C18Z	PUSH SWITCH	V(UP)	*
△ S8901	QSP4K21-C01	PUSH SWITCH	MAIN POWER	*

DOLBY PW BOARD ASS'Y (SJF0D001A-U2)

△ Symbol No.	Part No.	Part Name	Description	Local
C A P A C I T O R				
C0101	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C0102	NCT03CH-680AY	CHIP CAP.	68 p F 50V J	*
C0103	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C0104	NCB21HK-473AY	CHIP CAP.	0.047 μ F 50V K	*

△ Symbol No.	Part No.	Part Name	Description	Local
C A P A C I T O R				
C0105	NCB21HK-223AY	CHIP CAP.	0.022 μ F 50V K	*
C0106	NCB21HK-102AY	CHIP CAP.	1000 p F 50V K	*
C0107	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C0108	NCB21HK-473AY	CHIP CAP.	0.047 μ F 50V K	*
C0109	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C0110	NCT03CH-680AY	CHIP CAP.	68 p F 50V J	*
C0111	NCB21HK-473AY	CHIP CAP.	0.047 μ F 50V K	*
C0112-13	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C0115	NCB21HK-473AY	CHIP CAP.	0.047 μ F 50V K	*
C0116-25	NCB21HK-102AY	CHIP CAP.	1000 p F 50V K	*
C0126	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C0127	NCT03CH-220AY	CHIP CAP.	22 p F 50V J	*
C0128	NCT03CH-680AY	CHIP CAP.	68 p F 50V J	*
C0129	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C0130	NCB21HK-102AY	CHIP CAP.	1000 p F 50V K	*
C0131	NCF21CZ-105AY	CER.CAP.-M	1 μ F 16V Z	*
C0132	NCB21HK-102AY	CHIP CAP.	1000 p F 50V K	*
C0133	NCF21CZ-105AY	CER.CAP.-M	1 μ F 16V Z	*
C0134	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C0135	NCB21HK-102AY	CHIP CAP.	1000 p F 50V K	*
C0136	NCF21CZ-105AY	CER.CAP.-M	1 μ F 16V Z	*
C0137-38	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C0139	NCB21HK-102AY	CHIP CAP.	1000 p F 50V K	*
C0140	NCF21CZ-105AY	CER.CAP.-M	1 μ F 16V Z	*
C0141	NCB21HK-102AY	CHIP CAP.	1000 p F 50V K	*
C0142	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C0143	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C0144-45	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C0146	NCF21EZ-104AY	CER.CAP.-M	0.1 μ F 25V Z	*
C0147	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C0148	NCF21EZ-104AY	CER.CAP.-M	0.1 μ F 25V Z	*
C0201	NCB21HK-103AY	CHIP CAP.	0.01 μ F 50V K	*
C0202	NCB21HK-223AY	CHIP CAP.	0.022 μ F 50V K	*
C0203	NCB21HK-182AY	CHIP CAP.	1800 p F 50V K	*
C0204	NCF21CZ-105AY	CER.CAP.-M	1 μ F 16V Z	*
C0205	NCB21HK-103AY	CHIP CAP.	0.01 μ F 50V K	*
C0206	NCB21HK-223AY	CHIP CAP.	0.022 μ F 50V K	*
C0207	NCB21HK-182AY	CHIP CAP.	1800 p F 50V K	*
C0208	NCF21CZ-105AY	CER.CAP.-M	1 μ F 16V Z	*
C0209	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
C0210	NCB21HK-103AY	CHIP CAP.	0.01 μ F 50V K	*
C0211	NCB21HK-182AY	CHIP CAP.	1800 p F 50V K	*
C0212	NCF21CZ-105AY	CER.CAP.-M	1 μ F 16V Z	*
C0213	NCB21HK-103AY	CHIP CAP.	0.01 μ F 50V K	*
C0214	NCB21HK-223AY	CHIP CAP.	0.022 μ F 50V K	*
C0215	NCB21HK-182AY	CHIP CAP.	1800 p F 50V K	*
C0216	NCF21CZ-105AY	CER.CAP.-M	1 μ F 16V Z	*
C0217	NCB21HK-223AY	CHIP CAP.	0.022 μ F 50V K	*
C0218-21	NCT03CH-470AY	CHIP CAP.	47 p F 50V J	*
C O I L				
L0101-03	CE40344-4R7YL	INDUCTOR		*
D I O D E				
D0101	MA3062-X	ZENER DIODE		
D0201	MA3062(M)-X	ZENER DIODE		
I C				
IC0101	SAA7367T-X	I.C.(DIGI-MOS)		
IC0102	TMS57052BFT	I.C.(M)		
IC0103	LC32464M-80X	I.C.(D-RAM)		
IC0104-05	PCM1717E-X	I.C.(MONO-ANA)		
IC0111	BA4558F-X	I.C.(MONO-ANA)		
IC0201-02	UPC32462-X	I.C.(MONO-ANA)		

AV-28WR2EK

△ Symbol No.	Part No.	Part Name	Description	Local
O T H E R S				
CN0002	CHB302W-20P-AE	20P DINM PLUG		*
EF0101-05	CE42482-103Y	EMI FILTER		
K0101-02	CE42681-001Y	BEADS CORE		
K0104-07	CE42681-001Y	BEADS CORE		
X0101	NAX0001-001X	CRYSTAL		

IF PW BOARD ASS'Y (SJF0F901A-U2)

△ Symbol No.	Part No.	Part Name	Description	Local
C A P A C I T O R				
C0030	NCB21HK-472AY	CHIP CAP.	4700 p F 50V K	*
C0040	NCT03CH-102AY	CHIP CAP.	1000 p F 50V J	*
C0041	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C0042	NCB21HK-103AY	CHIP CAP.	0.01 μ F 50V K	*
C0043	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C0044-45	NCB21HK-103AY	CHIP CAP.	0.01 μ F 50V K	*
C0047	QETN1CM-227Z	E CAP.	220 μ F 16V M	*
C0050	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C0054	NCB21HK-103AY	CHIP CAP.	0.01 μ F 50V K	*
C0055	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C0056	QETN1HM-474Z	E CAP.	0.47 μ F 50V M	*
C0057	NCT03CH-102AY	CHIP CAP.	1000 p F 50V J	*
C0058	NCB21HK-472AY	CHIP CAP.	4700 p F 50V K	*
C0062	QETN1HM-474Z	E CAP.	0.47 μ F 50V M	*
C0064	NCB21HK-472AY	CHIP CAP.	4700 p F 50V K	*
C0065	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C0069-70	NCB21HK-103AY	CHIP CAP.	0.01 μ F 50V K	*
C0071	QETN1HM-336Z	E CAP.	33 μ F 50V M	*
C0080-81	NCB21HK-472AY	CHIP CAP.	4700 p F 50V K	*
C0101	QETN1CM-476Z	E CAP.	47 μ F 16V M	*
C0104	NCT03CH-221AY	CHIP CAP.	220 p F 50V J	*
C0140	QETN1HM-335Z	E CAP.	3.3 μ F 50V M	*
C0141	NCB21HK-332AY	CHIP CAP.	3300 p F 50V K	*
C0142	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C0143	QFLC1HJ-683MZ	MYLAR CAP.	0.068 μ F 50V J	*
C0144	QETN1HM-335Z	E CAP.	3.3 μ F 50V M	*
C0145	NCB21HK-222AY	CHIP CAP.	2200 p F 50V K	*
T R A N S F O R M E R				
T0050	CELT001-307	CW TRANSF		*
C O I L				
L0030	CE41131-2R2Y	CHIP INDUCTOR		*
L0040	CE41131-4R7Y	INDUCTOR		*
L0070	CE41131-5R6Y	INDUCTOR		*
L0103-04	CE41131-8R2Y	CHIP INDUCTOR		*
T R A N S I S T O R				
Q0080	2SC2712(YG)-X	SI. TRANSISTOR		*
Q0101	2SC2712(YG)-X	SI. TRANSISTOR		*
Q0107	2SA1162(YG)-X	SI. TRANSISTOR		*
Q0109-10	2SC2712(YG)-X	SI. TRANSISTOR		*
I C				
IC0010	TA8865BN	I.C(MONO-ANA)		

AV-28WR2EK

△ Symbol No.	Part No.	Part Name	Description	Local
O T H E R S				
CF0100	TPSH6.0MB	CERAMIC FILTER		*
CF0140	CSB503F30-T2	CER.RESONATOR		*
CN0003	CHB302W-20P-AE	20P DINM PLUG		*
SF0010	QAX0315-001	SAW FILTER		*
SF0012	CE41031-301	SAW FILTER		*

AV TERMINAL PW BOARD ASS'Y (SJF0J001A-U2)

△ Symbol No.	Part No.	Part Name	Description	Local
C A P A C I T O R				
C0103-05	QETN1HM-106Z	E CAP.	10 μ F 50V M	*
C0106	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C0107	NCB21HK-472AY	CHIP CAP.	4700 p F 50V K	*
C0108	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C0109	NCB21HK-472AY	CHIP CAP.	4700 p F 50V K	*
C0203	QFLC1HJ-103MZ	M CAP.	0.01 μ F 50V J	*
C0204-05	QETN1HM-105Z	E CAP.	1 μ F 50V M	*
C0206-07	NCB21HK-472AY	CHIP CAP.	4700 p F 50V K	*
C0301-05	NCB21HK-222AY	CHIP CAP.	2200 p F 50V K	*
C O I L				
L0101-04	CELP017-5R6Y	PEAKING COIL	5.6 μ H	*
L0105	CE41832-001	LEAD CORE		*
L0201-04	CELP017-5R6Y	PEAKING COIL	5.6 μ H	*
L0205	CE41832-001	LEAD CORE		*
L0301-05	CE40344-100YL	INDUCTOR	100 μ H	*
L0306	CE41832-001	LEAD CORE		*
O T H E R S				
CN0008	CHA401R-15R-J	HQF CONNECTOR		*
CN0009	CHA401N-25R-J	HQF CONNECTOR		*
J0001-02	CE40529-006	SCART CONNECTOR		
J0301	CEMN090-003	PIN JACK		
J0302	CEMN045-005	PIN JACK		*

PACKING PARTS LIST

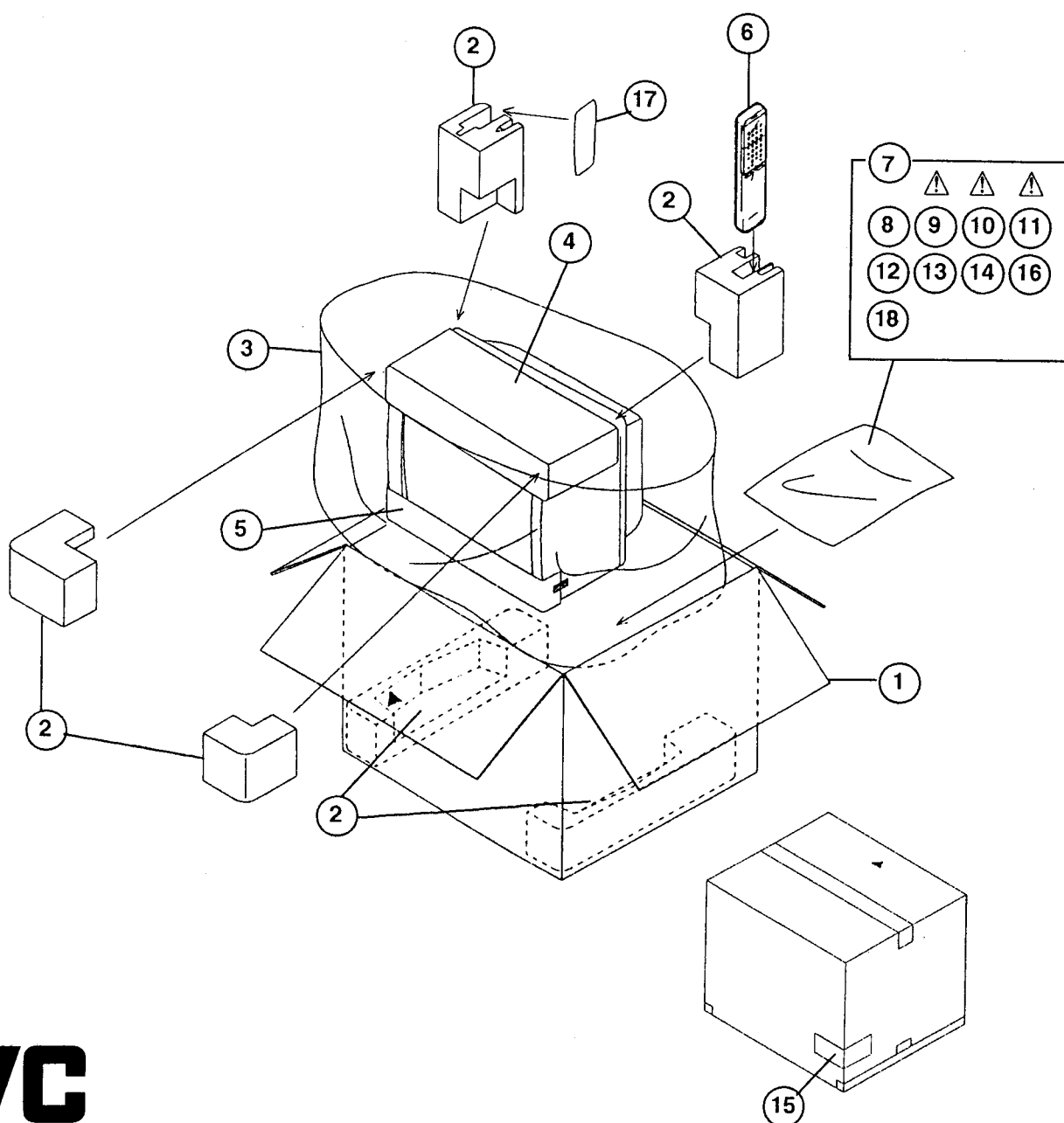
AV-28WR2EN

△ Ref.No.	Part No.	Part Name	Description	Local
1	AEM1002-A44-E	PACKING CASE		*
2	CP11547-00B-E	CUSHION ASSY	6pcs in 1set	*
3	AEM1004-A06-E	SET COVER		*
4	CP40193-009-E	CUSHION SHEET		*
5	CP40193-010-E	CUSHION SHEET		*
6	RM-C793-1E	REMOCON UNIT		*
7	AEM3021-001-E	POLY BAG		*
8	BT-54008-1E	WARRANTY CARD		*
18	28WR2EN-HSAE	S.DIAGRAM	[Only ITAY]	
△ 9	CQ40369-001-E	INST BOOK	For GBR/GER/FRA/NED/ITA/ESP	*
△ 10	CQ40370-001-E	INST BOOK	For FIN/NOR/DEN/SWE/POR	*
13	BT-20066A-E	ADDRESS CARD	(1295)	*
14	CM22966-013-E	DEC.SHEET		
15	AEM1038-064-E	EURO LABEL		
16	LCT0065-001A-U	WARNING SHEET		*
17	AEEAK001-200	RF CABLE		*

AV-28WR2EK

△ Ref.No.	Part No.	Part Name	Description	Local
1	AEM1002-A44-E	PACKING CASE		*
2	CP11547-00B-E	CUSHION ASSY	6pcs in 1set	*
3	AEM1004-A06-E	SET COVER		*
4	CP40193-009-E	CUSHION SHEET		*
5	CP40193-010-E	CUSHION SHEET		*
6	RM-C792-1E	REMOCON UNIT		*
7	AEM3021-001-E	POLY BAG		*
8	BT-54008-1E	WARRANTY CARD		*
△ 11	CQ40367-001-E	INST BOOK		*
12	CQ40368-001-E	SET UP GUIDE		*
13	BT-20066A-E	ADDRESS CARD	(1295)	*
15	AEM1038-065-E	EURO LABEL		
16	LCT0065-001A-U	WARNING SHEET		*
17	AEEAK001-200	RF CABLE		*


PACKING



JVC

VICTOR COMPANY OF JAPAN, LIMITED
TELEVISION RECEIVER DIVISION 1106 Heta, Iwai-city, Ibaraki-prefecture, 306-06, Japan

28WR2EN-CKD #4
28WR2EK-CKD #3


 Printed in Japan
VP 9706
DP3053

AV-28WR2EN STANDARD CIRCUIT DIAGRAM

AV-28WR2EK

■NOTE ON USING CIRCUIT DIAGRAMS

1.SAFETY

The components identified by the  symbol and shading are critical for safety. For continued safety replace safety critical components only with manufactures recommended parts.

2.SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

- (1)Input signal :PAL Colour bar signal
- (2)Setting positions
of each knob/button
and variable resistor :Original setting position
when shipped
- (3)Internal resistance of tester :DC 20kΩ/V
- (4)Oscilloscope sweeping time
:H ⇒20μS/div
:V ⇒5mS/div
:Others ⇒ Sweeping time is
specified
- (5)Voltage values :All DC voltage values

* Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3.INDICATION OF PARTS SYMBOL[EXAMPLE]

- In the PW board :R1209→R209

4.INDICATIONS ON THE CIRCUIT DIAGRAM

(1)Resistors

•Resistance value

- No unit :[Ω]
- K :[KΩ]
- M :[MΩ]

•Rated allowable power

- No indication :1/6[W]
- Others :As specified

•Type

- No indication :Carbon resistor
- OMR :Oxide metal film resistor
- MFR :Metal film resistor
- MPR :Metal plate resistor
- UNFR :Uninflamable resistor
- FR :Fusible resistor

* Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2)Capacitors

•Capacitance value

- 1 or higher :[pF]
- less than 1 :[μF]

•Withstand voltage

- No indication :DC50[V]
- Others :DC withstand voltage[V]
- AC indicated :AC withstand voltage[V]

* Electrolytic Capacitors

- 47/50[Example]:Capacitance value[μF]/withstand voltage[V]





•Type

- No indication :Ceramic capacitor
- MY :Mylar capacitor
- MM :Metalized mylar capacitor
- PP :Polypropylene capacitor
- MPP :Metalized polypropylene capacitor
- MF :Metalized film capacitor
- TF :Thin film capacitor
- BP :Bipolar electrolytic capacitor
- TAN :Tantalum capacitor

(3)Coils



- No unit :[μH]
- Others :As specified

(4)Power Supply




-  :B1
-  :B2(12V)
-  :8V
-  :5V

* Respective voltage values are indicated.





(5)Test Point

-  : Test point
-  : Only test point display



(6)Connecting method

-  : Connector
-  : Wrapping or soldering
-  : Receptacle

(7)Ground symbol

-  : LIVE side ground
-  : ISOLATED(NEUTRAL) side ground
-  : EARTH ground
-  : DIGITAL ground

5.NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : () side GND and the ISOLATED(NEUTRAL) : () side GND. Therefore, care must be taken for the following points.

- (1) Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. If the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.
- (2) Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected, a fuse or any parts will be broken.

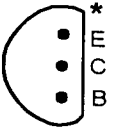
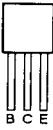

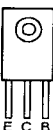

◇ Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.

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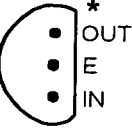
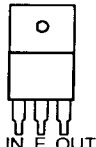
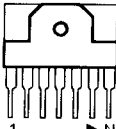
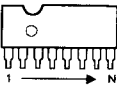
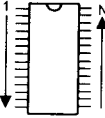
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SEMICONDUCTOR SHAPES

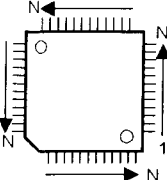
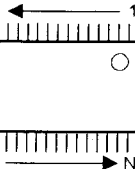
TRANSISTOR

BOTTOM VIEW	FRONT VIEW			TOP VIEW
				CHIP TR 

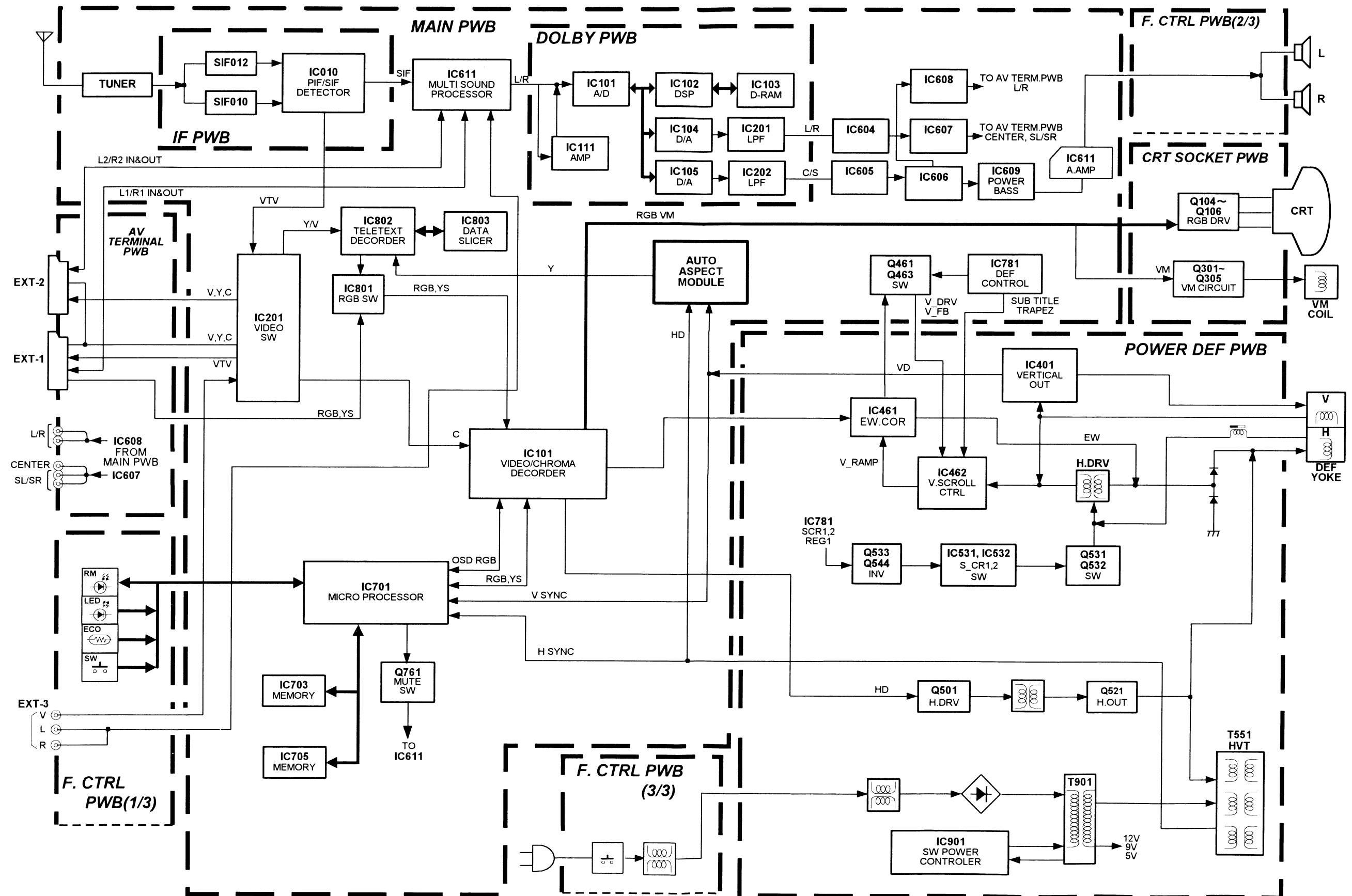
IC

BOTTOM VIEW	FRONT VIEW			TOP VIEW
				

CHIP IC

TOP VIEW		
		

BLOCK DIAGRAM



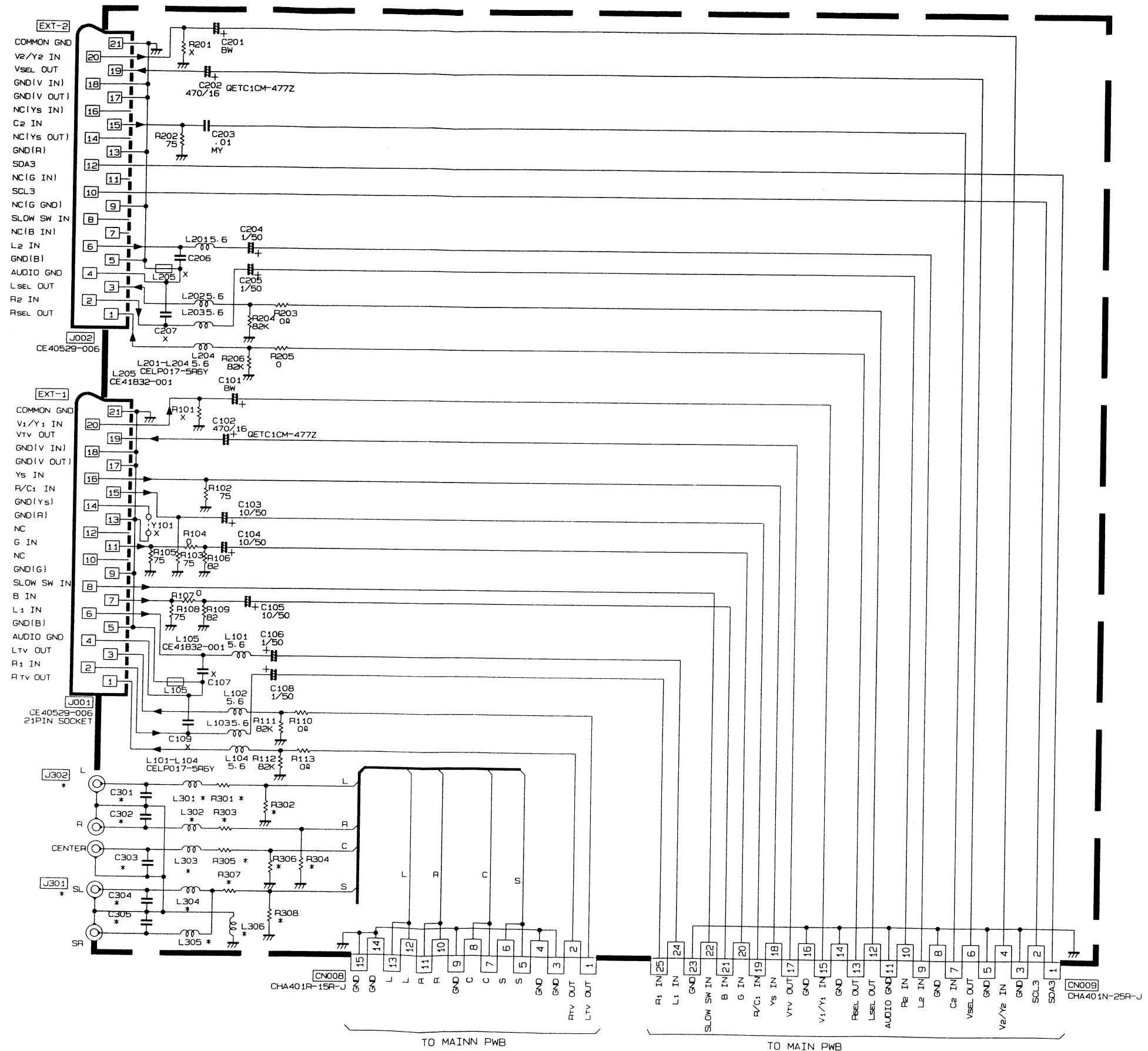
CIRCUIT DIAGRAMS AND PATTERN DIAGRAMS

AV TERMINAL PWB CIRCUIT DIAGRAM

AV TERMINAL PWB ASS'Y
SJFOJ001A-U2
[AV-28WR2EN/EK]

REFERENCE LIST(*PARTS)

*SJF	*SJF	*SJF	*SJF
Q0001A-U2	Q0001A-U2	Q0001A-U2	Q0001A-U2
L301 CE40344	C301 .0022	L302 CE40344	C302 .0022
-100YL		-100YL	
L303 CE40344	C303 .0022	L304 CE40344	C304 .0022
-100YL		-100YL	
L305 CE40344	C305 .0022	L306 CE41832	J301 CEMN090
-100YL		-001	-002
R301 0	J302 CEMN045		-004
R302 10k			
R303 0			
R304 10k			
R305 0			
R306 10k			
R307 0			
R308 10k			



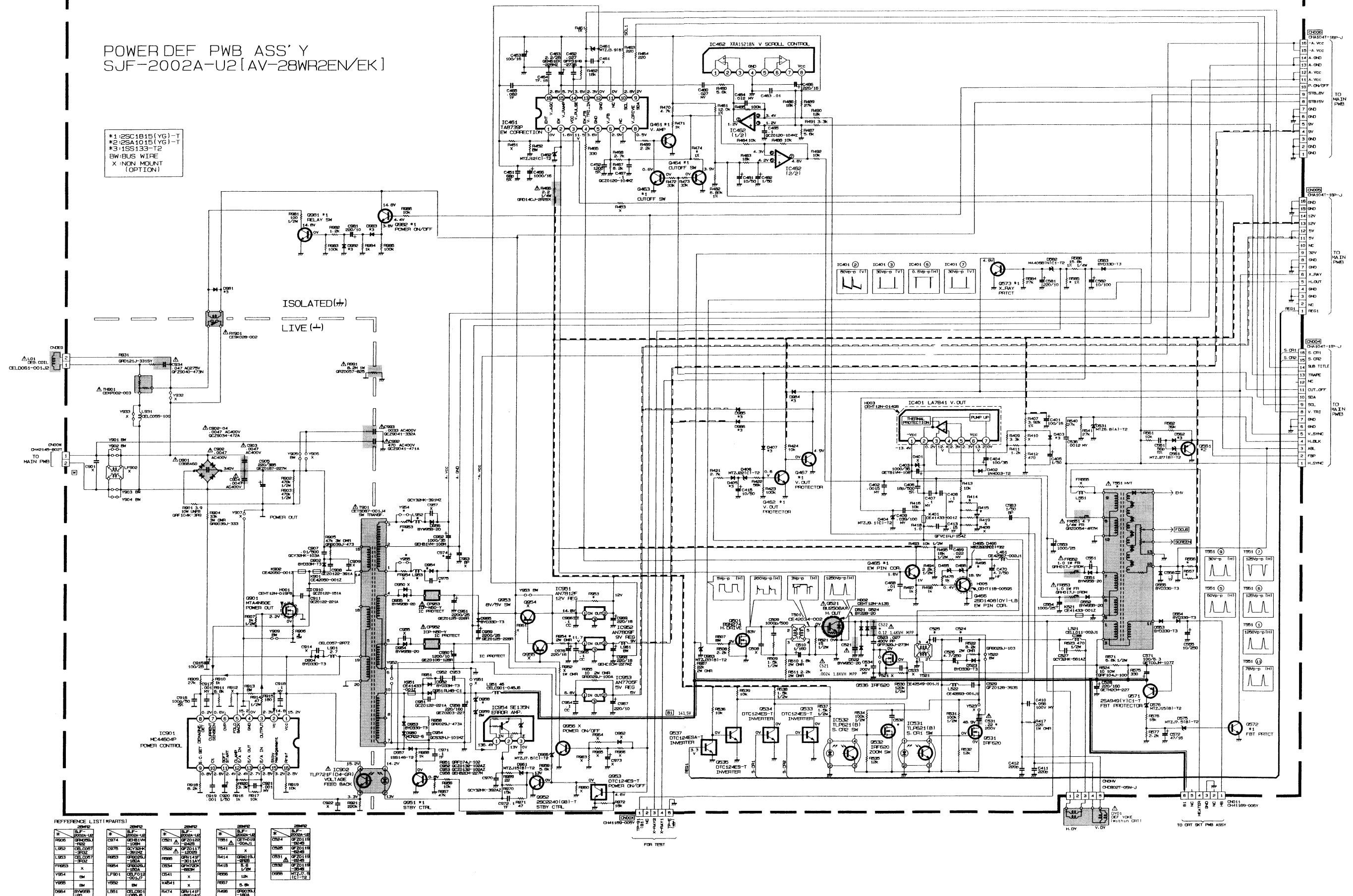
AV-28WR2EN
AV-28WR2EK

AV-28WR2EN
AV-28WR2EK

POWER DEF PWB CIRCUIT DIAGRAM

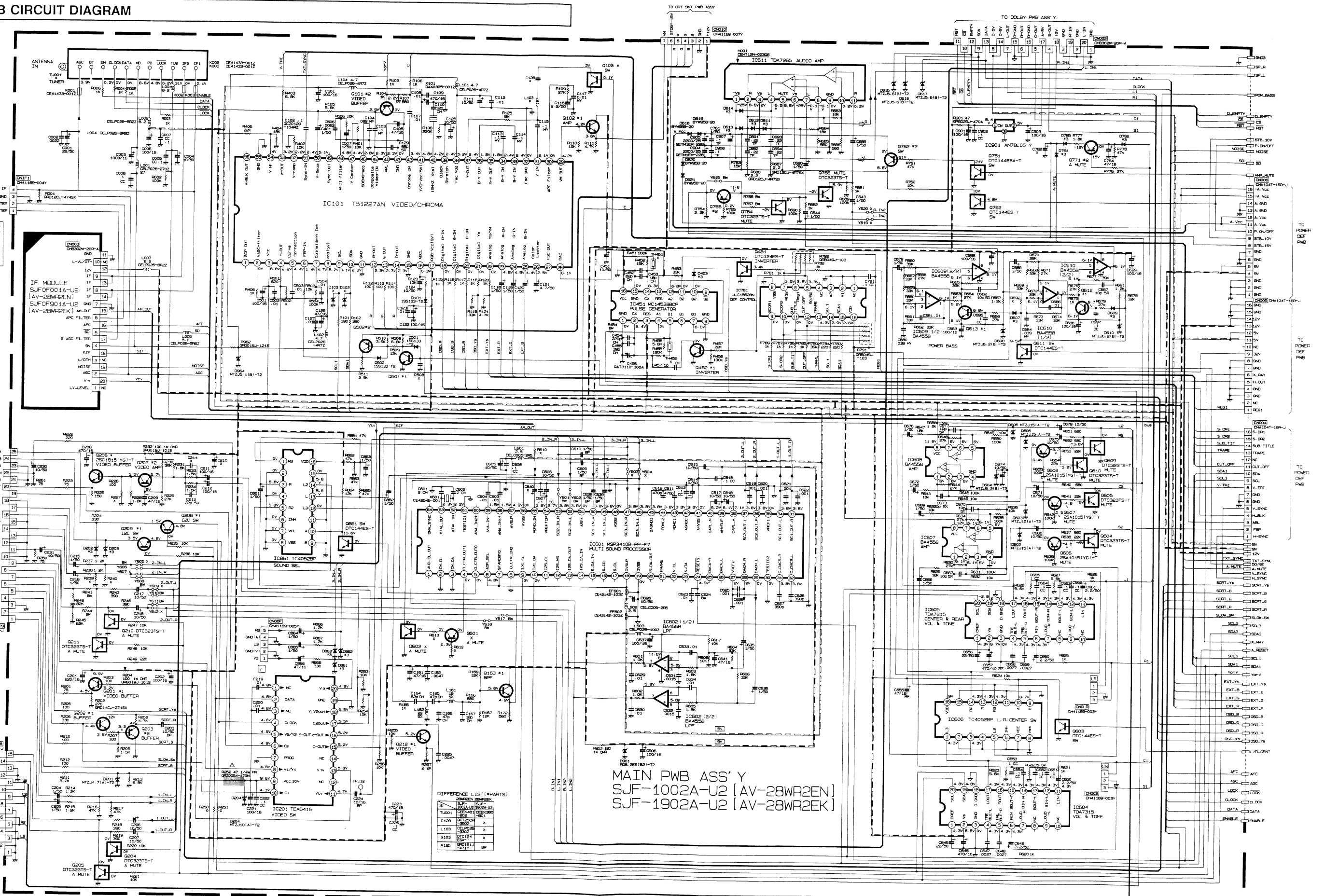
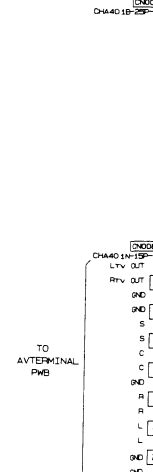
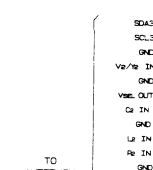
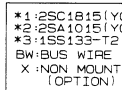
POWER DEF PWB ASS'Y
SJF-2002A-U2[AV-28WR2EN/EK]

*1:2SC1815(YG)-T
*2:2SA1015(YG)-T
*3:1SS133-T2
BW:BUS WIRE
X:NON MOUNT
(OPTION)



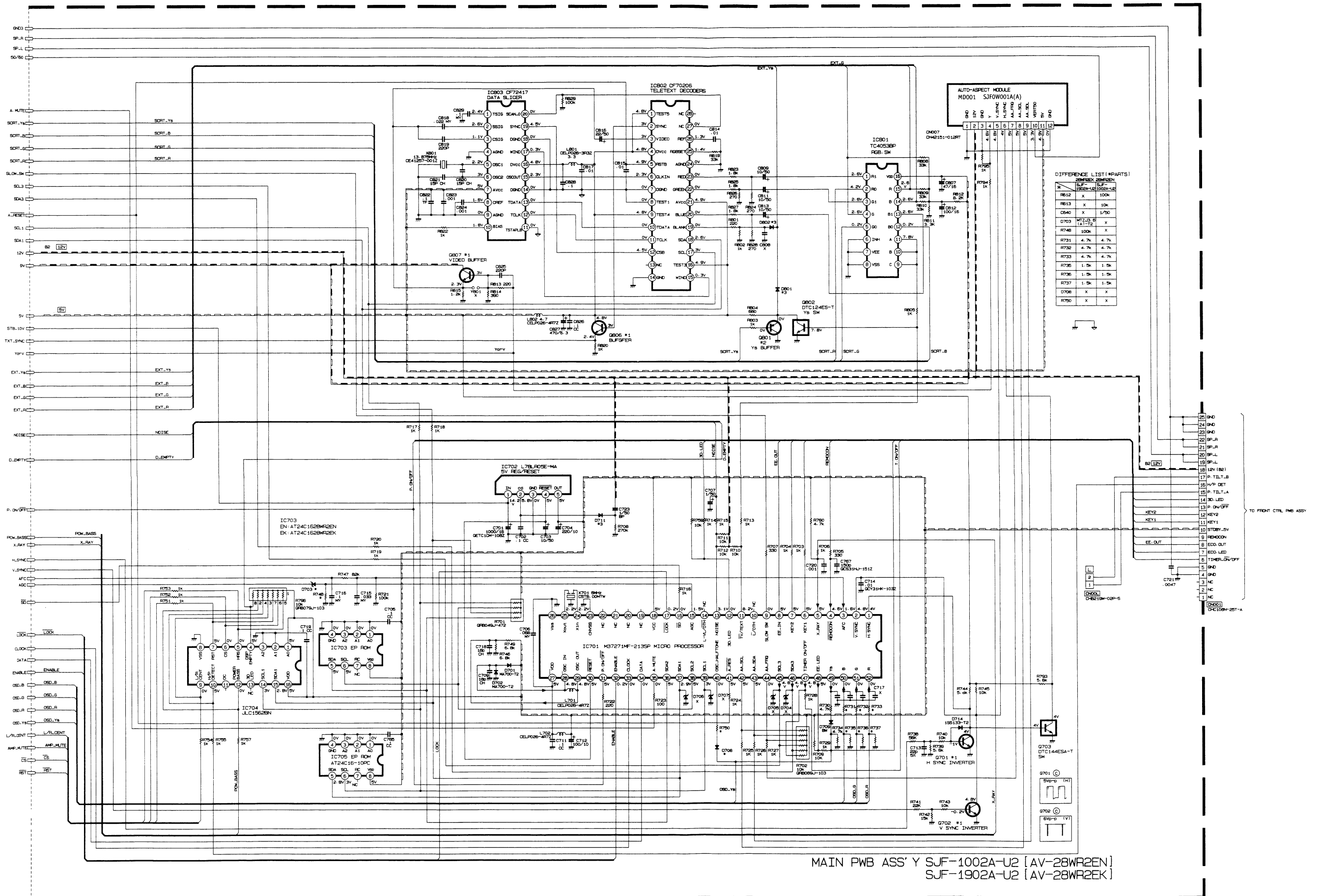
REFERENCE LIST (PARTS)

REF	QTY	DESCRIPTION	REF	QTY	DESCRIPTION	REF	QTY	DESCRIPTION	REF	QTY	DESCRIPTION
R1	1	10K	R51	1	10K	R91	1	10K	R131	1	10K
R2	1	10K	R52	1	10K	R92	1	10K	R132	1	10K
R3	1	10K	R53	1	10K	R93	1	10K	R133	1	10K
R4	1	10K	R54	1	10K	R94	1	10K	R134	1	10K
R5	1	10K	R55	1	10K	R95	1	10K	R135	1	10K
R6	1	10K	R56	1	10K	R96	1	10K	R136	1	10K
R7	1	10K	R57	1	10K	R97	1	10K	R137	1	10K
R8	1	10K	R58	1	10K	R98	1	10K	R138	1	10K
R9	1	10K	R59	1	10K	R99	1	10K	R139	1	10K
R10	1	10K	R60	1	10K	R100	1	10K	R140	1	10K

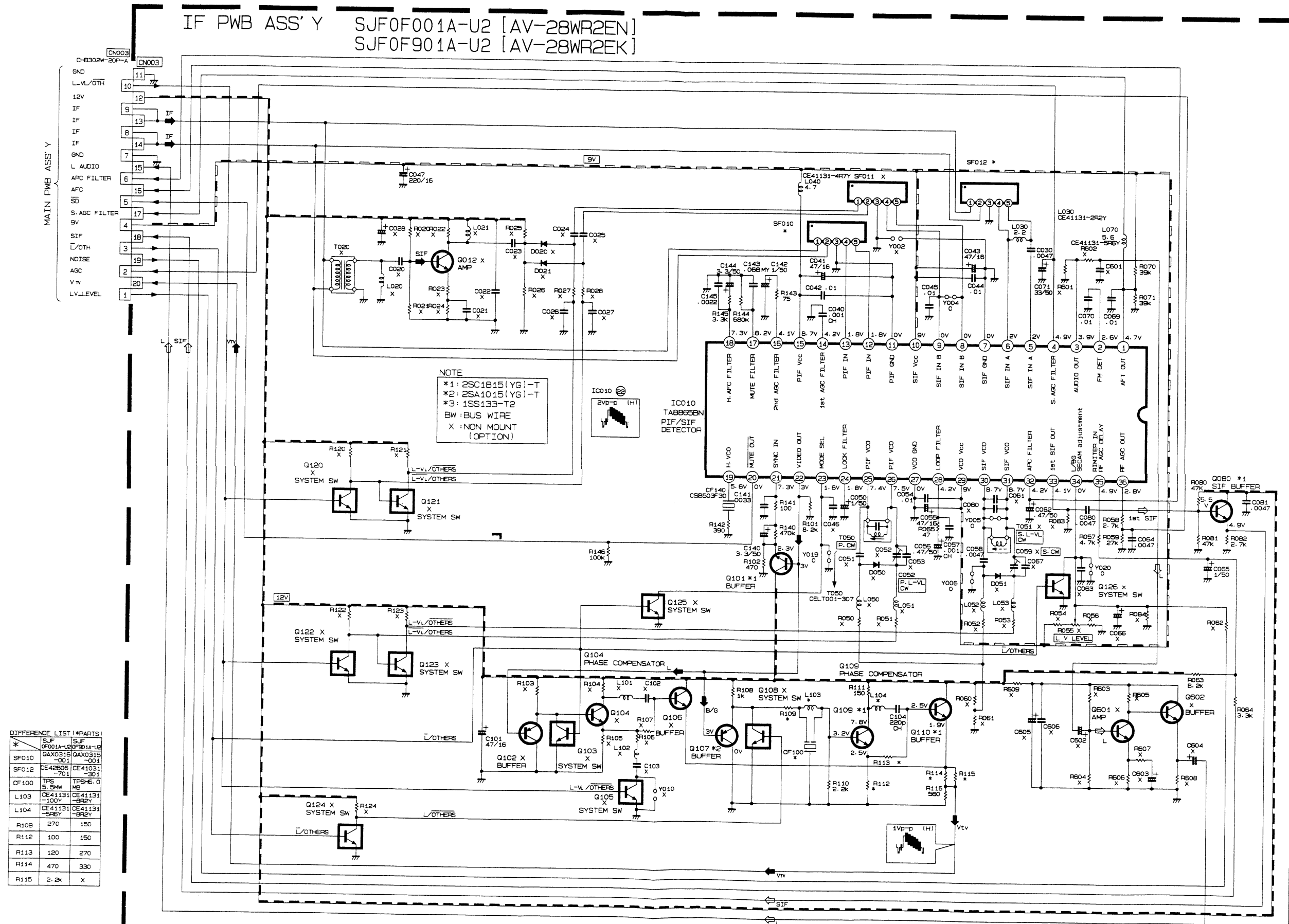


AV-28WR2EN
AV-28WR2EK

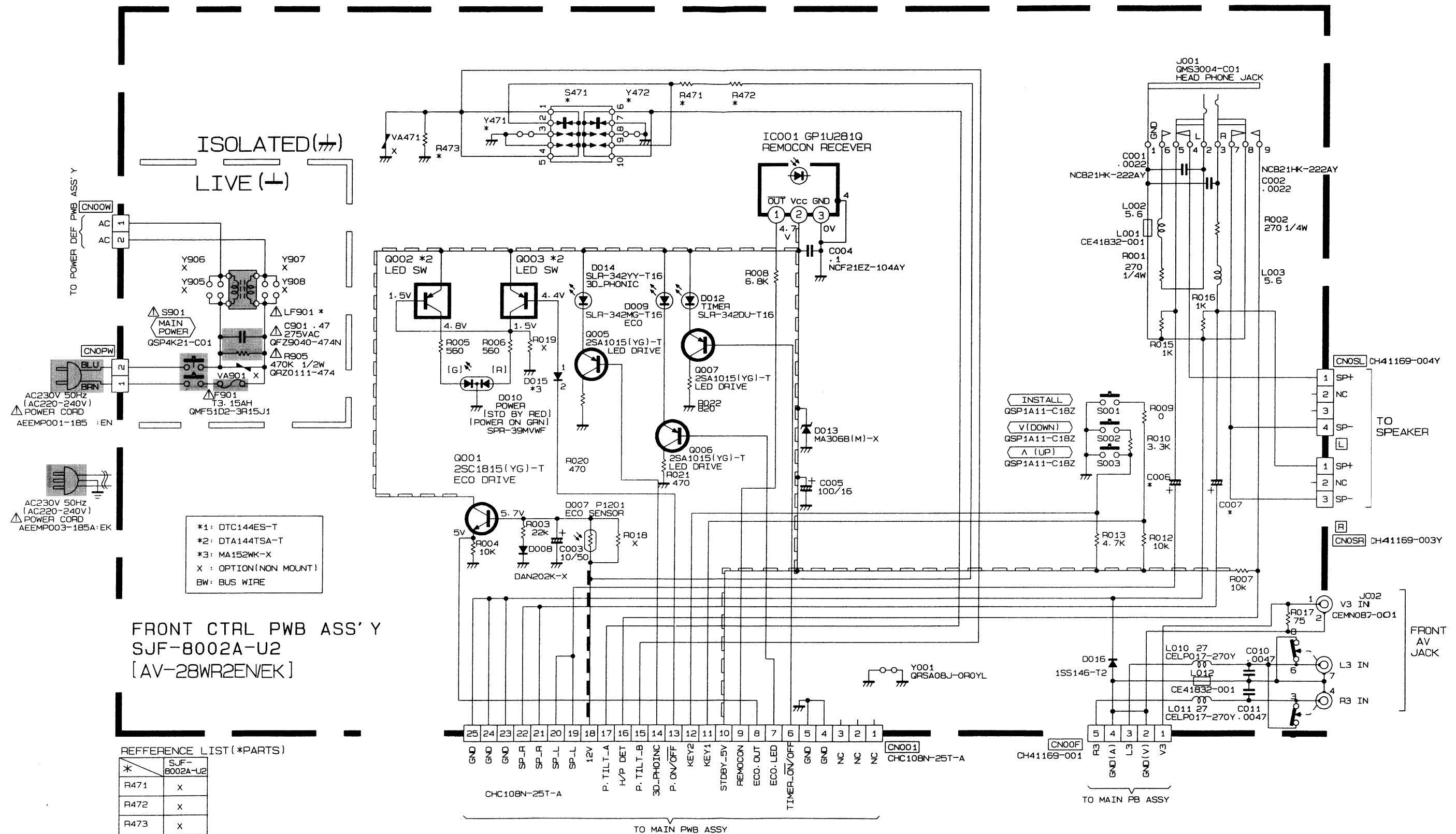
AV-28WR2EN
AV-28WR2EK



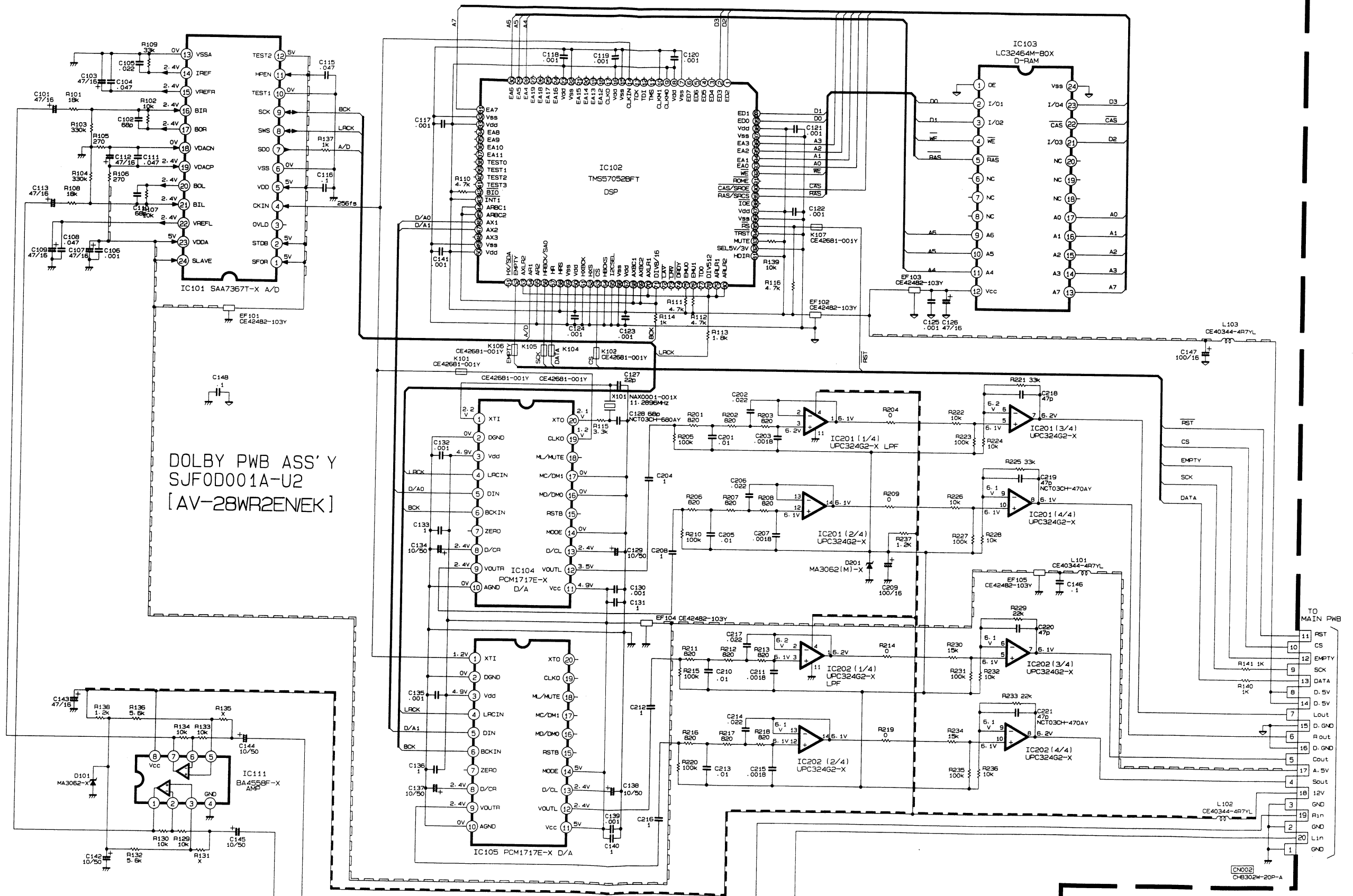
IF PWB CIRCUIT DIAGRAM



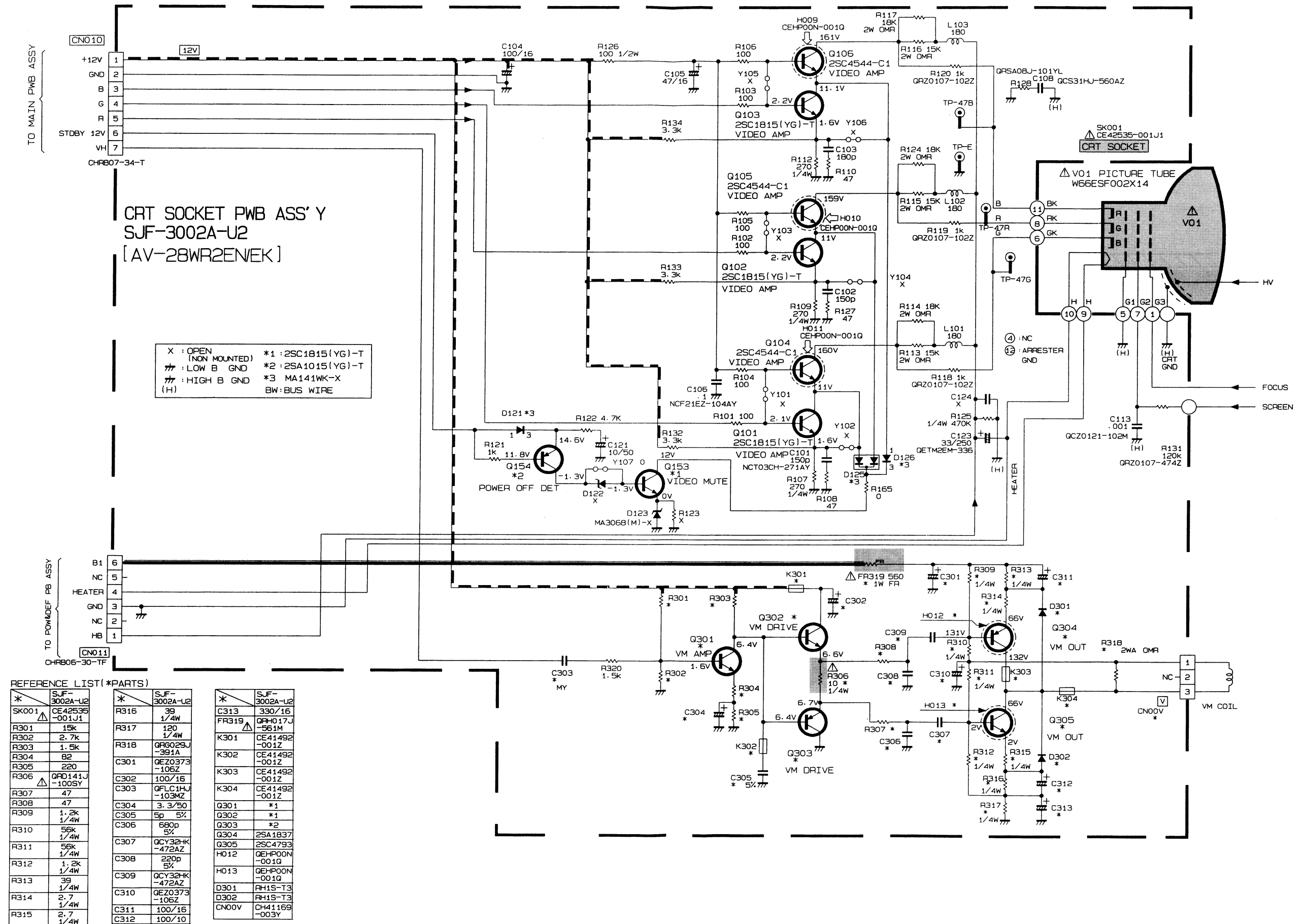
FRONT CONTROL PWB CIRCUIT DIAGAM



DOLBY PWB CIRCUIT DIAGRAM



CRT SOCKET PWB CIRCUIT DIAGRAM



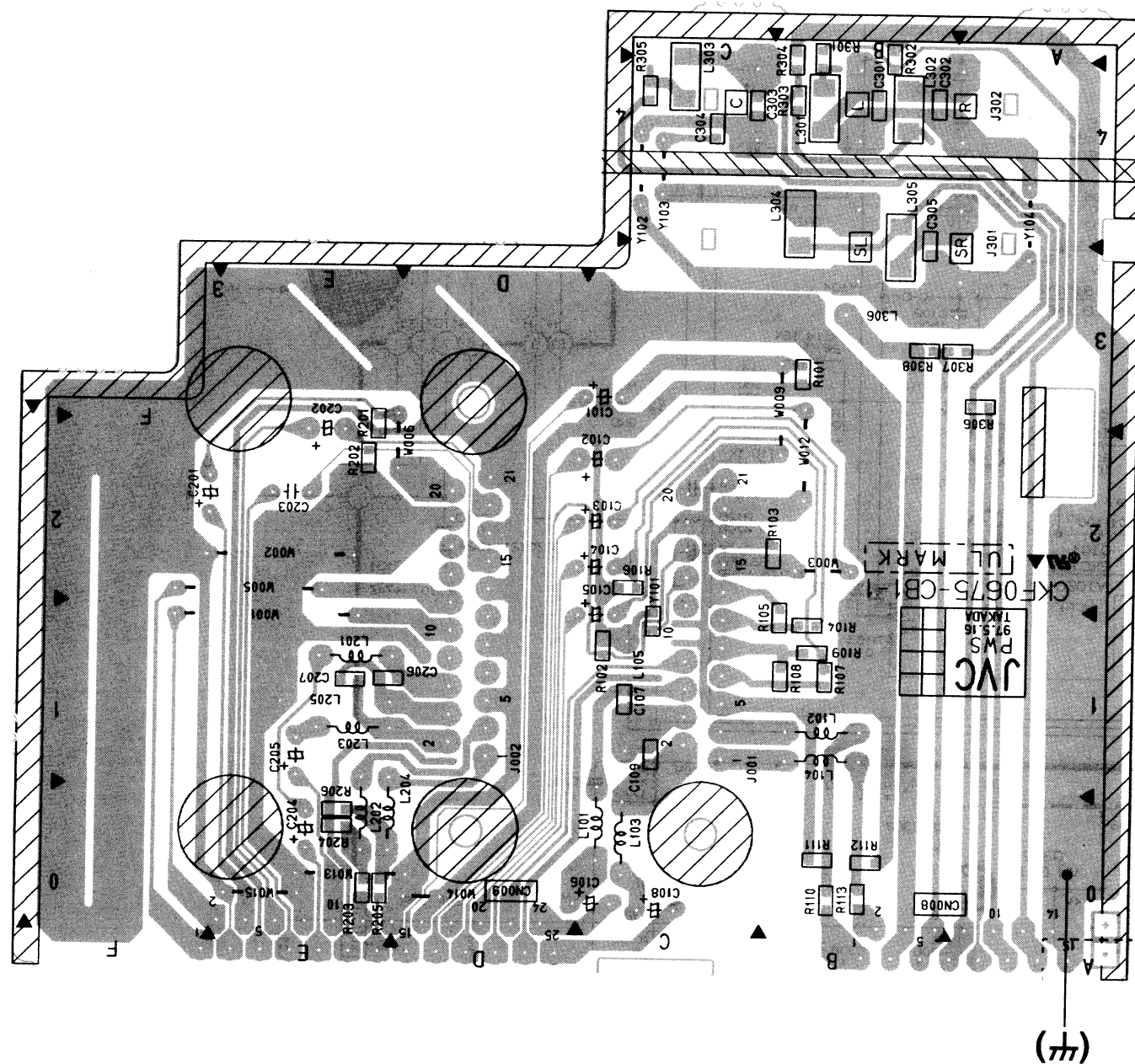
AV TERMINAL PWB PATTERN DIAGRAM

IF PWB PATTERN DIAGRAM

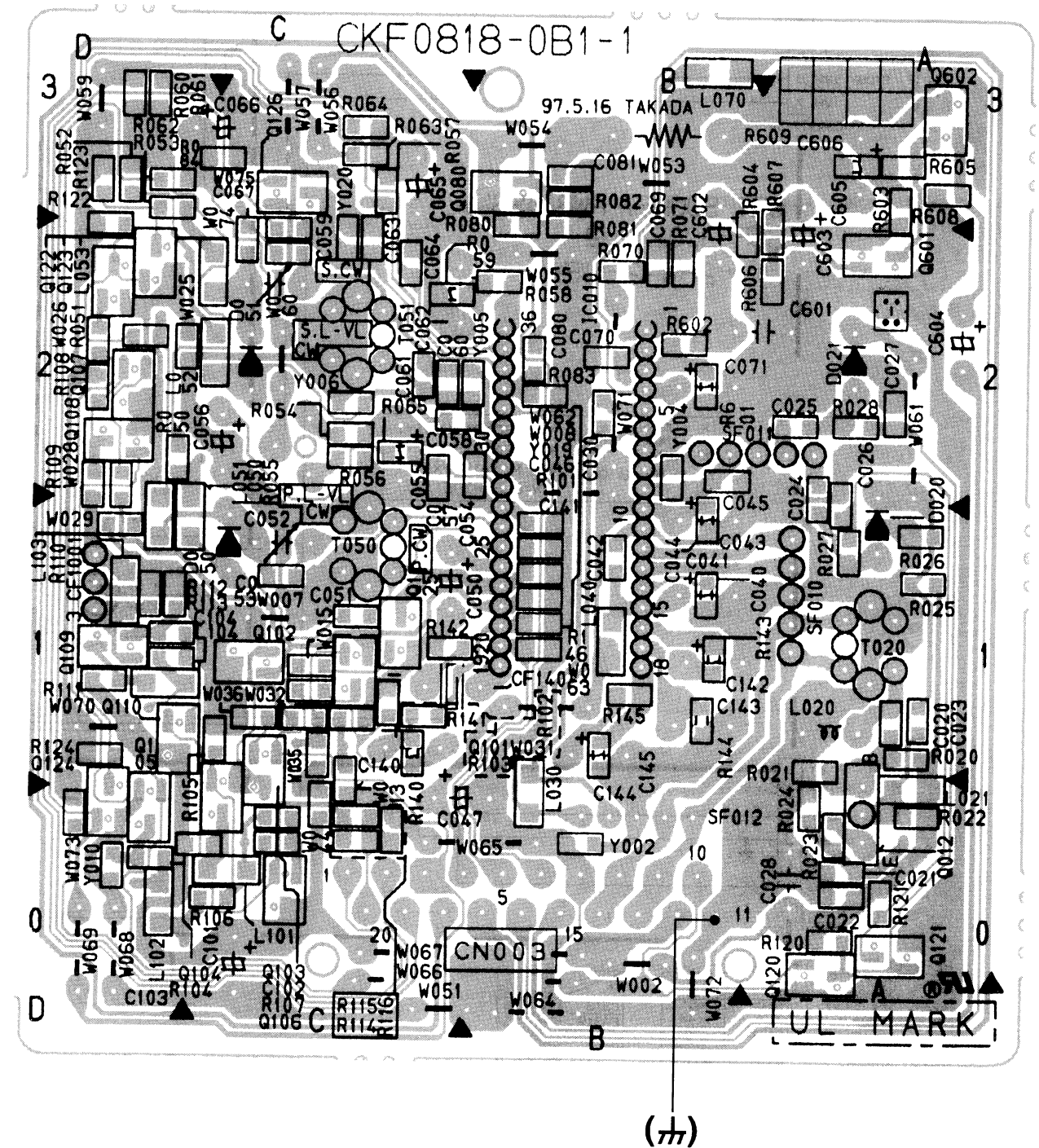
(Magnification Rate 115%)

(Magnification Rate 180%)

↑ TOP



↑ TOP



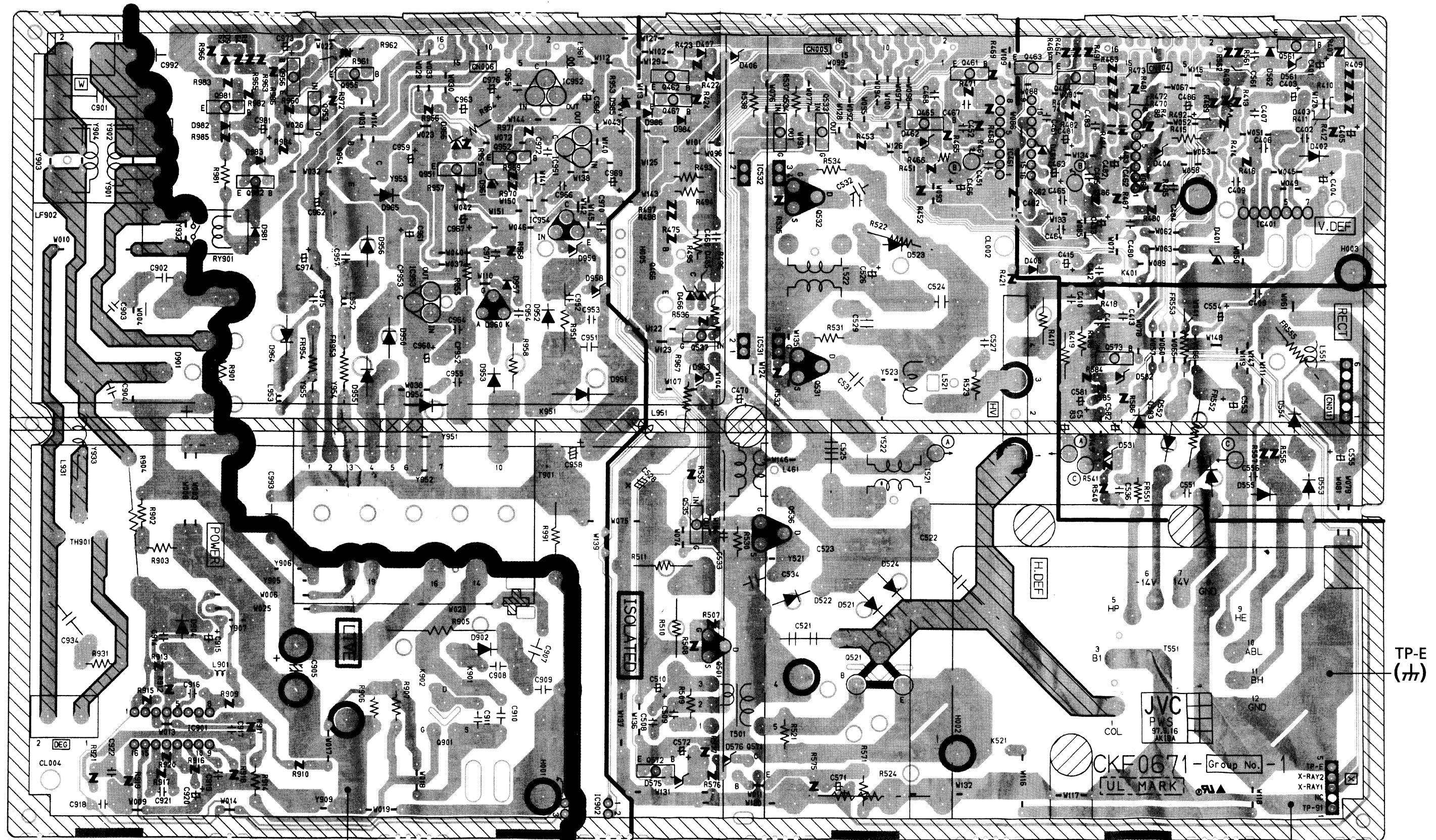
(Magnification Rate 100%)



POWER DEF PWB PATTERN DIAGRAM

FRONT

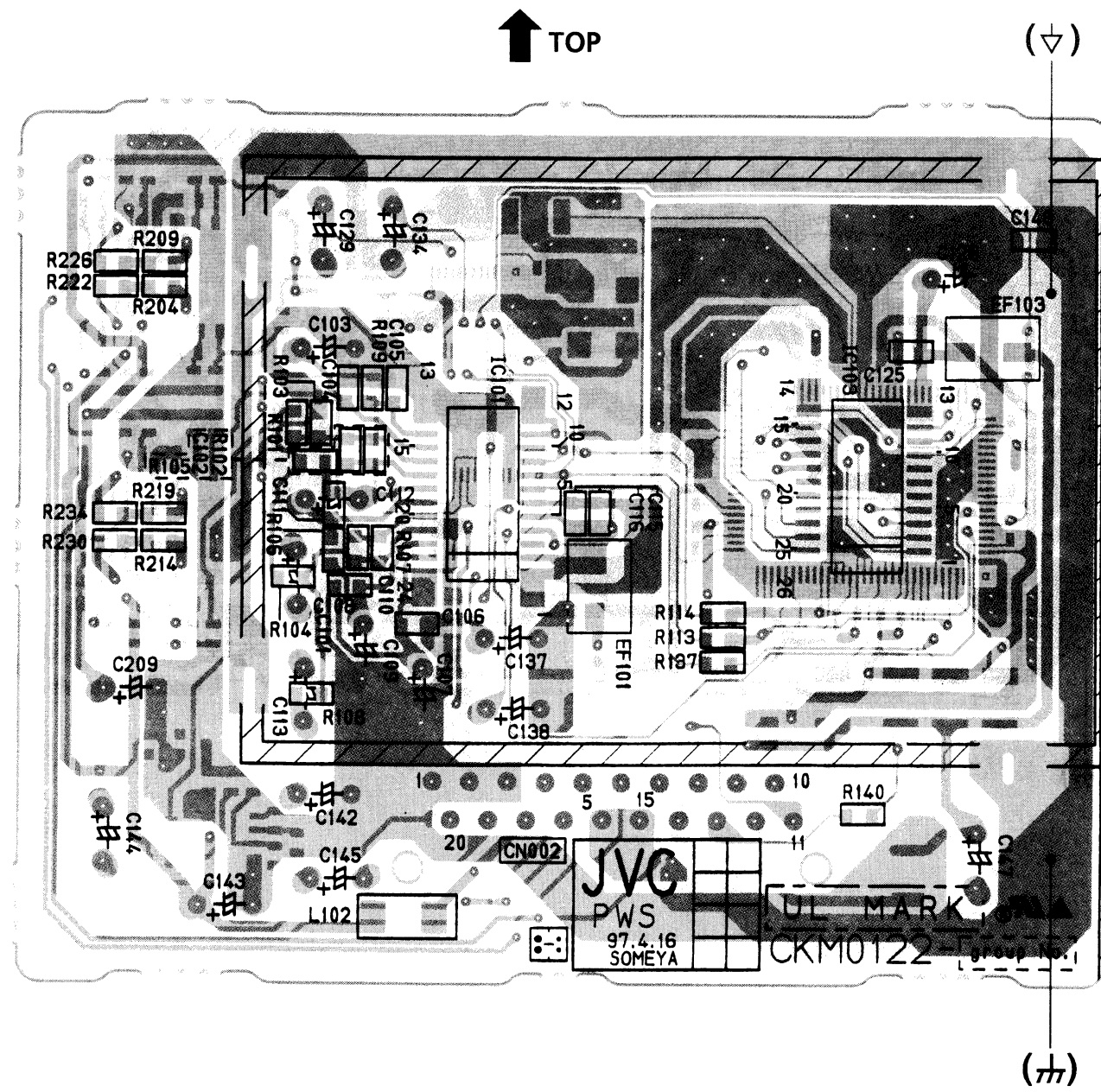
(Magnification Rate 110%)

TP-E
($\pi\pi$)

TP-91
(B1)

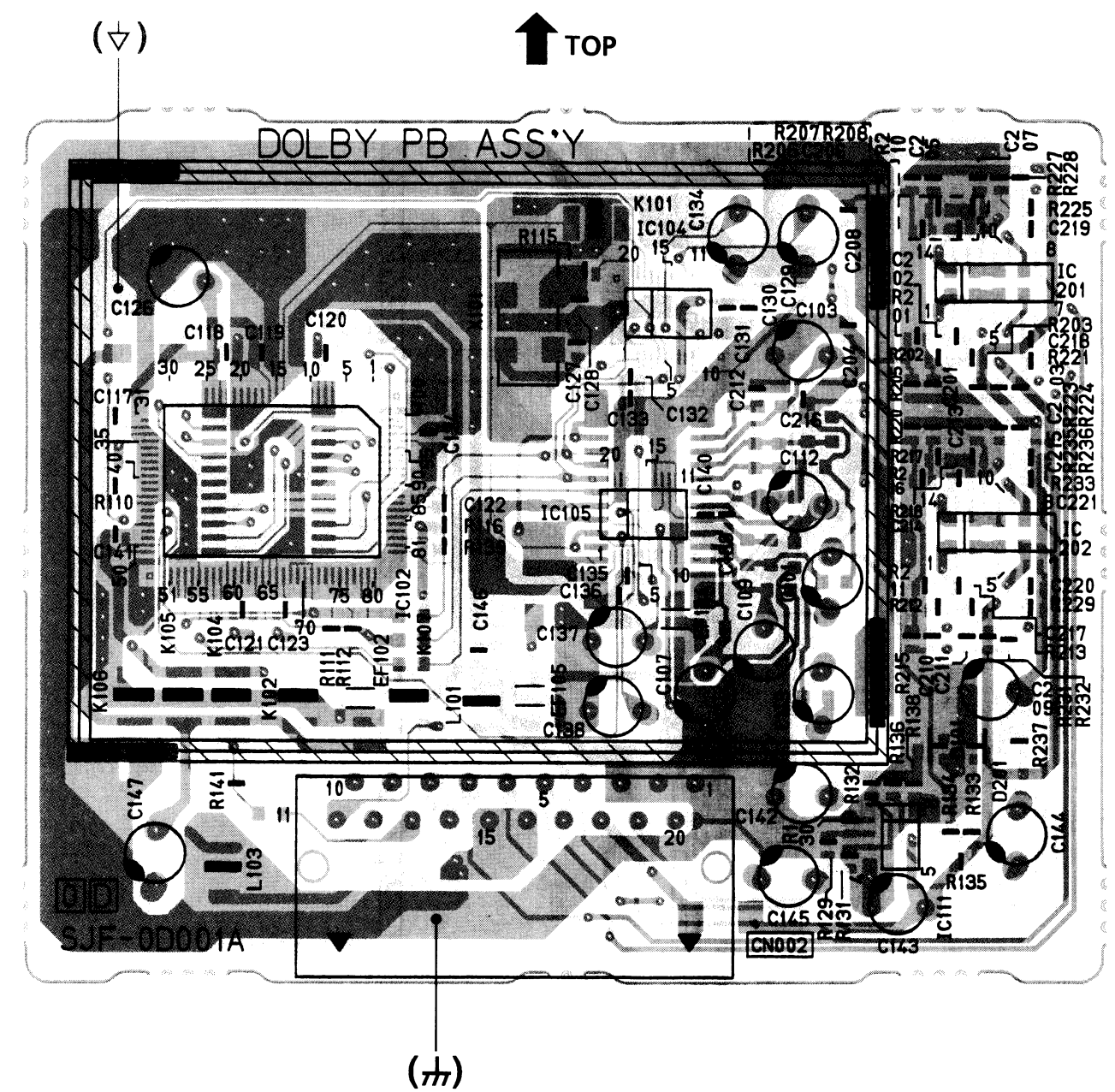
DOLBY PWB PATTERN DIAGRAM (SOLDER SIDE)

(Magnification Rate 117%)



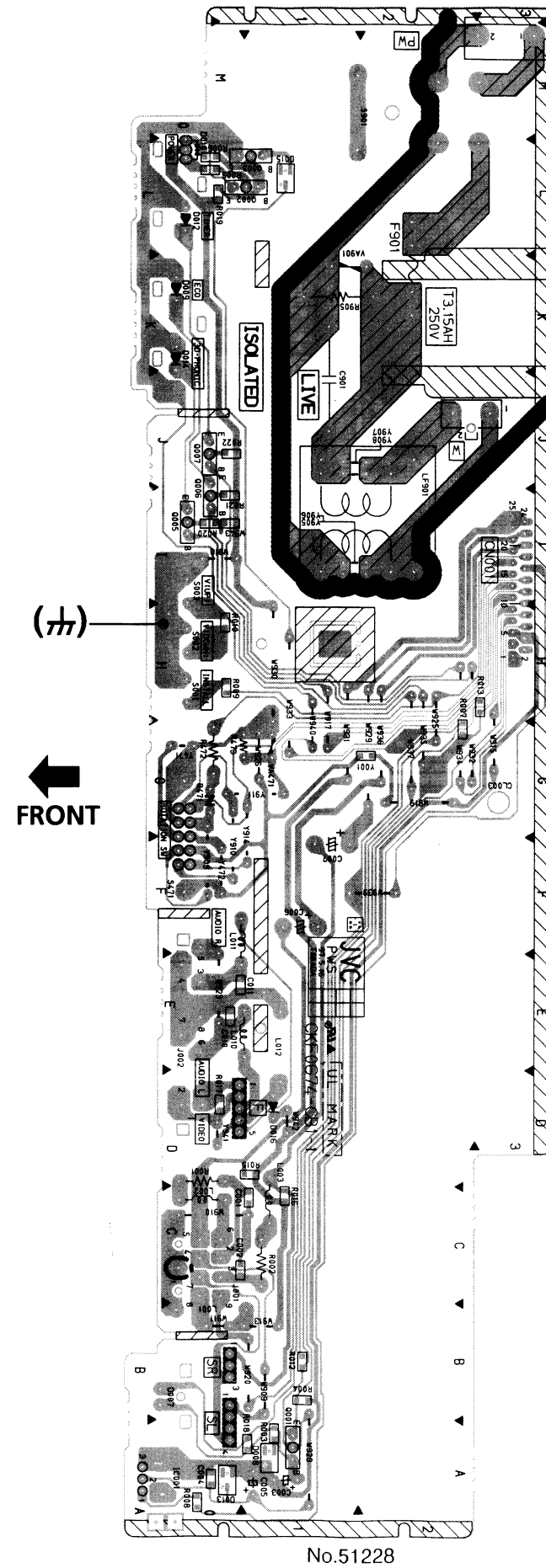
DOLBY PWB PATTERN (PARTS SIDE)

(Magnification Rate 117%)



FRONT CONTROL PWB PATTERN DIAGRAM

(Magnification Rate 73%)



CRT SOCKET PWB PATTERN DIAGRAM

(Magnification Rate 109%)

